

# AMERICAN AGRICULTURIST,

ADAPTED TO THE

## Farm, Garden, and Household.

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN—WASHINGTON.

ORANGE JUDD, A. M., }  
EDITOR AND PROPRIETOR.

ESTABLISHED IN 1842.

{ \$1.00 PER ANNUM, IN ADVANCE.  
SINGLE NUMBERS 10 CENTS.

VOL. XIX.—No. 3.

NEW-YORK, MARCH, 1860.

[NEW SERIES—No. 158.]

Office at 189 Water-st., (Near Fulton-st.)  
Contents, Terms, &c., on pages 91-96.

Entered according to Act of Congress in the year 1860, by ORANGE JUDD, in the Clerk's Office of the District Court of the United States for the Southern District of New-York. *P. N. R.*—Every Journal is invited freely to copy any and all desirable articles with credit, and no reference will be made to our Copy-Right, where each article or illustration is duly accredited to the *American Agriculturist*. ORANGE JUDD, Proprietor.

### American Agriculturist in German.

The AMERICAN AGRICULTURIST is published in both the English and German Languages. Both Editions are of Uniform size, and contain, as nearly as possible, the same Articles and Illustrations. The German Edition is furnished at the same rates as the English, singly or in clubs.

#### March.

"As yet the trembling year is unconfirmed,  
And Winter oft at eve resumes the breeze,  
Chills the pale morn, and bids his driving sheets  
Deform the day delightful; so that scarce  
The bittern knows his time, with bill ingulfed,  
To shake the sounding marsh; or from the shore  
The plovers when to scatter o'er the heath,  
And sing their wild notes to the listening waste."  
THOMPSON.

It puzzles many to know, what this sour, crusty month was made for. It is neither Summer nor Winter, but fitful, cross-grained and turbulent, like a spoiled child. Now we have a bright sunny day, when the breeze comes sighing in softest cadence from the sweet South, and it seems as if the golden gates of Spring were unlocked, and the grand choral procession of birds and flowers was about to enter. To-morrow, the wind howls frightfully, black clouds drive through the heavens, the air is filled with mingled sleet and hail, and the chilling blast strikes into the bones. The ground is covered with snow and hail, the ponds are sheeted with ice, and from the eaves of barn and dwelling, hang stalactitic crystals in long glittering rows. But as the sun comes up, and we stand looking at them with shivering glances, the whole platoon comes down with a crash, followed by an avalanche of snow from the laden roofs. There is a relenting of the reign of the frost king, the days grow longer, and the power of the sun increases, giving promise of the good time coming.

The farmer could poorly afford to part with March, rough and uncomfortable as it is. The alternate freezings and thawings, if he have made preparations to receive their full benefits, will prove an important advantage to his fields. They work mechanical changes in the texture of the soil, and prepare the way for chemical changes, as they break down the indurated lumps, and bring the different ingredients into closer contact. More available plant food is probably manufactured in this month, from this cause, than in all the Winter months. Almost every twenty-four hours, the surface of the earth is frozen and thawed

again, and every change adds a little to the store of plant food, on which the vegetation of the coming Summer may rely for its sustenance. The rough winds, too, are friendly agencies in drying up the superabundant moisture of the earth. This leaves small fissures in the soil, into which the seeds of grasses sink, where they soon vegetate. The worst features of the month, like afflictions, are friends in disguise.

There are many persons very much like March, always blustering and grumbling. They complain of hard times, and nothing seems to go right with them. The tilling of the soil is the hardest kind of work, and rewarded with the fewest comforts. The farmer can not afford to have upon his own table those luxuries which he provides for others. If he fat a calf, or lamb, the butcher gets them both. If he raise chickens and eggs, the merchant wants them all to square up his account. If he rear a flock of turkeys and geese, he can only afford one at the annual festival of Thanksgiving. If he have a patch of early garden vegetables, they are all wanted in the neighboring village, at such prices that he can not keep them. He has to live upon old stores, while mechanics and merchants are luxuriating upon new potatoes in June, at two dollars a bushel. They can dress in the finest of broad-cloth, while he can poorly afford a second-rate article, and has to keep the best hat and coat on hand, till they are thrice out of fashion. He has a hard time of it, and thinks the evils of life greatly overbalance its joys. Now, we are disposed to put on a few March airs, just for once, and read the grumblers a lecture. Mark, this is only to those deserving it, not a large class, and only those whom the garment fits, will put it on.

We guess, if you find hard times, when every product you raise sells so high that you can not afford to keep it, there must be a screw loose somewhere in your economy. You are extravagant. We see you are indignant at the charge, and point to your frugal fare, and your threadbare coat, in conclusive attestation of the strict parsimony of your habits. But let us investigate this matter. There is your house, a fine two-story building, nicely painted inside and out, with rooms enough in it to accommodate a family three times as numerous as yours. There is the parlor, perhaps a large double room with folding doors, and not used on an average three times a year. Then look at the fixings and furniture in it, kept mainly for show, and yet never shown to any body that respects you a tittle more for its embellishments. There are carpets costing a hundred dollars, elegant mahogany chairs, bureaux, sofas, etc., to keep them company. They are all too good for use, too sacred for the children to play with. It is too cold for them in there during Winter, and in Summer they might soil the carpet, or break a mirror.

Then, in the garret, or upper part of the house, you have, perhaps, a great deal of unfurnished

room, dedicated to old newspapers, dried herbs, strings of pepper-pods, three-legged chairs, and superannuated cradles. This receptacle of trumpery was probably put on to keep up appearances, and to have a house as big as your neighbor's. Now, you have in these unused, and, for your purpose, useless things, perhaps a thousand or fifteen hundred dollars. It is so much dead capital locked up. You get no interest on it, and it yields you no profit, except a slight gratification to your pride, and that of your family.

Nor is this all of the extravagance. Your wife has a great deal of anxiety and care to keep so much extra room in order, and to put all the spotless furniture safely through the perils of the semi-annual cleaning. What sweepings and dustings, and fussings, and fixings, with articles kept mainly for show! Now, these things may be all well enough for a man of fortune, who can command as many housekeepers and servants as he wishes, to keep up a fashionable style of living. But they are extravagance in a plain farmer, who feels that he can hardly afford a hired man in his fields, or a dairy-maid in his house. This capital, put into a large house and its adornments, if it were invested in his business, labor, stock, muck, barn cellars, or better tools, would pay him a large interest. It would apply grease to the wheels, where they now are squeaking and waiting, like March winds.

Then, to keep up appearances out doors as well as in, you must sell the old wagon, and get a new carriage at an expense of two hundred dollars, and then, to match the carriage, there must be a fine harness, and finer horses, the whole establishment costing five or six hundred dollars. There was a good deal of wear in the old wagon, and it would have lasted a dozen years longer with careful usage, and taken your family to church with as much edification, and probably more, than the present varnished vehicle. We have nothing to say against a fine equipage, but it should belong to a man who eats turkey more than once a year, and whose parlor is inhabited. Possibly this and other extravagances are the occasion of your hard times, and of the discontent that pervades your life. There is no rapid fortune to be made in farming, but with industry and economy it yields a sure and ample reward to all. Extravagance, or living beyond one's means, is ruin in any business.

It is bad policy to allow cattle to roam over grass lands in Spring. They undoubtedly enjoy the freedom, and relish the first tender bits of the fresh grass, and it is a pleasant sight to see them in the fields again; but they do more harm to the grass than they get of good. In meadows that have become somewhat run out, more seed of herds-grass and clover should be sown, the surface well harrowed both ways, and afterwards rolled. This treatment sometimes doubles the crop. Two tuns per acre cost little more than one



## Calendar of Operations for March, 1860.

[We note down sundry kinds of work to be done during the month, not so much to afford instruction to practical men, as to call to mind the various operations to be attended to. A glance over a table like this will often suggest some piece of work that might otherwise be forgotten or neglected. Our remarks are more especially adapted to the latitudes of 38° to 45°; but will be equally applicable to points further North and South, by making due allowance for each degree of latitude, that is, earlier for the South, later for the North.]

This table will be much fuller, and more important during the planting season when there is a greater variety of work to be done.

EXPLANATIONS.—*f* indicates the first; *m* the middle; and *l* the last of the month.—Doubling the letters thus; *ff*, or *mm*, or *ll*, gives particular emphasis to the period indicated.—Two letters placed together, as *fm* or *ml*, signify that the work may be done in either or in both periods indicated; thus, work marked *fm*, indicates that it is to be attended to from the first to the middle of the month.]

## Farm.

March is here, with its rude winds, like a busy blusterer clearing the way for the advancing season. Unpleasant as the sweeping blasts are, they perform important service, rapidly freeing the surface of the earth from moisture and enabling the awakening vegetation to push its way up to light. Already at the South the fields are green and the gardens planted. Cultivators in this latitude often wish for the advantages of such an early season. Though we can not control the sunshine, we may do much to make it more effective. A properly sheltered and thoroughly drained farm may be worked many days earlier than one where the winds are unchecked, and the soil saturated with moisture, with no way of escape but by surface evaporation. Much, too, may be gained by system and full preparation. Let the season's work be fully planned, all necessary implements prepared and seed procured now, that there be no hindrance when the time arrives for active operations.

Buildings need careful inspection to secure weak timbers, loose boards, and open joints from the driving winds of March.

Cattle—This is perhaps the worst month of the season for animals. Keep up their appetite by change of food, alternating cut coarse fodder with grain and roots. Look well to breeding cows; give them separate roomy stalls at night. Working cattle should be gradually introduced to heavy work after their long inactivity. Keep them well cased and in good trim.

Cellars—Open for thorough ventilation as early as possible. Remove all refuse and decaying vegetables. Sort potatoes, apples, etc. Preserve beets, carrots, cabbages, etc., for seed. Whitewash the walls and posts at an early day.

Clover—Sow, *m*, *l*, upon light snow, or when the ground is well opened by a morning frost. Use plenty of seed.

Draining—Lay tile drain as early as frost will allow. If these can not be procured, subsoil wet lands intended for grain. Clear out open ditches, adding the muck to the manure heap.

Fences—Put in repair, *ff*, or as soon as frost is out of the ground. See particularly to line fences. Plant hedges, *m*, *l*, in localities not too cold. Prepare posts, rails and gates in stormy weather.

Forests—Devote waste rocky spots to locust, black walnut, maple or other quick growing trees.

Grain—Examine bins to exclude vermin. Keep from molding. Shell and market corn. Select or procure seed if neglected until now.

Hedge rows near fences, and scrubby bushes in meadows and pastures, or by the road side, should be rooted out. Tidiness adds to the market value of the farm, and improves the taste and pleasure of the occupants.

Hogs—Breeding sows need attention. Give a little animal food and charcoal or cinders occasionally. Give liquor enough to intoxicate to those inclined to destroy their young. Litter the pens freely to make manure. Keep all tidy.

Horses—Commence working gradually and increase feed with the labor. Give carrots with oats. Avoid exposure to winds when heated.

Ice-House—Complete filling if not done, and keep properly secured. Examine drainage and ventilation.

Manures—Work over compost heaps. Cart that already prepared to the fields, and cover the heaps with muck or soil and plaster if accessible. Remove contents of privies before warm weather makes it more offensive. Cleanse hog pens, hen roosts, kitchen drains, etc., to increase the stock of fertilizers.

Meadows—Remove rocks, roots, brush, etc., as the weather permits. Keep drains open. Allow no stock to graze upon or trample them up—or down.

Plowing done too early is a detriment. Wait until the ground will not pack. Deepen the soil gradually, one to two inches a year. Cross plow lightly, lands deeply turned last Fall. Subsoil when practicable.

Potatoes—Secure early, for home use at least, as described on page 73. Secure seed of best varieties. Try new kinds sparingly.

Poultry—Give chopped meat and green food with grain. Supply with water, gravel and ashes, or chip dirt. Remove accumulations of droppings. Save eggs for setting, *m*, *l*. For earliest chickens set, *l*. Allow one male to ten or twelve hens. Read article on Turkey raising, page 76.

Seed—Secure full supply from reliable sources. Change occasionally for that raised in a distant locality. Test small parcels of corn and other grain before using largely.

Sheep—Keep breeding ewes by themselves, where they may be comfortable and quiet. Allow them roots and grain. Watch for early lambs. Read article on Protection from Dogs, page 75.

Sugar Maples—Tap, *f*, to *m*. Use shallow evaporators. Keep all sufficiently clean to prevent the necessity for clarifying.

Sorghum—It may be well to plan for trying a small plot this year for soiling, for fodder, or if practicable for making syrup. Secure seed early.

Tools—Provide all necessary, repair and repaint those needing it. Return borrowed tools; your neighbor may be looking his up, and not know where they are.

Wood—Have enough for the year cut and piled to season now—under cover if practicable.

## Orchard and Nursery.

In the Orchard much may be done to promote thrift, protect from insects, and replace decayed trees. Proper attention year by year will make this department more remunerative than the grain field.

The nurseryman will find plenty of business in attending to orders for Spring planting, and in providing for increase of stock. The earliest favorable time for planting should be improved, both to forward the work and for the benefit of the trees.

Apple Trees—Scrape the trunks and larger limbs clean. Remove small suckers—pruning is better done in August. Replace poor fruit with select varieties by grafting. Plant standards in favorable locations by the roadside, along lanes, etc.

Cherries, Peaches and Plums—Set a full supply for home use near the house. Plant Cherries as early as frost permits. Straighten trees bent down by prevailing winds.

Cions may be cut, *ff*, if not done before. Label each sort distinctly. Keep those already provided where they will preserve their natural moisture.

Drain with tiles all heavy soils. Fruit trees will not thrive with wet feet.

Evergreen Trees—Do not remove unless absolutely necessary. May is much more favorable. If it be done, take up plenty of earth with them and keep the roots from exposure to sunshine or wind.

Grafting—Begin, *ll*, with cherry and trees that start earliest. Next month is usually best for apples, pears and most fruits. Read article on page 82.

Insects—Examine all trees purchased or sent out from the nursery for scale insects, and reject them; they can not thrive until freed. Apply alkaline wash. See "Wash for fruit Trees," page 81.

Manures—Top dress orchards liberally with compost containing plenty of leaf mold. Lime and ashes are good.

Mice-girdled Trees or those injured by rabbits may sometimes be saved by coating with grafting cement. Shellac dissolved in alcohol is also recommended. For preventive see page 82.

Pear Trees—Choose standards rather than dwarfs for main supply. A few of the latter will do for the garden. Plant, *m*, *l*. In grafting on wild stocks, be particular to procure seedlings, and not suckers thrown up from the roots of old trees. Secure full supply of young stocks early. Read article, page 82.

Plums—Plant, *ll*. Examine branches for indications of "black knot" and remove with the knife, paring smoothly.

Pruning—Leave it until late Summer, except to remove small shoots or decaying branches.

Seeds or Pits—Plant, *ff*, *m*, apple, pear, quince, cherry, peach, plum, walnut and chestnut, which were stored for use last Fall. Sow, *m*, *l*, seeds of evergreen and of deciduous trees, as locust, maple, birch, etc.

Stocks budded last year—Remove the natural growth, two or three inches above where the bud has taken.

Transplant trees with as much earth as possible attached. Keep the roots shaded from the sun; remove all that are injured paring the ends smooth.

## Kitchen and Fruit Garden.

In this latitude, properly drained, deeply worked soils will be ready for some of the earlier vegetables this month, most varieties however, must wait until the air is more genial; except with the aid of the hot-bed. Some of the most successful gardeners wait until their impatient neighbors have finished before planting a seed, and in the end

find their account in so doing. The situation, exposure, etc., will determine the best season for a commencement. Meantime let an ample stock of manure, seeds, implements, etc., be prepared, and the garden fully planned.

Artichokes—Top dress old beds with stable manure and plant new, *m*, *l*.

Asparagus—Remove covering and fork in manure, *ll*, as soon as danger from frost is past. Make new beds from seed or roots, *ll*. See article page 83.

Blackberries—A patch of New-Rochelle or other cultivated variety near the house is preferable to dependence on the "bush lots" at a distance. The flavor is also superior. Plant roots, *m*, *l*.

Borecole and Kale—Sow, *ll*, where the ground will permit.

Cabbage and Cauliflowers—Sow, *ff*, *m*, in hot-beds. Give constant heat and little air till well started, then harden gradually. Sow in open ground, *ll*. Set stumps and heads for seed, *ll*.

Caraway—Sow seed, *ll*.

Celery—Sow in hot-beds, *m*, *l*.

Cold Frames—Give plenty of air as the temperature increases, removing the sashes daily except in freezing weather. Sow cabbages, lettuce, radishes, etc., to succeed plants ready for transplanting.

Cress—Sow, *ll*, in open ground.

Currants and Gooseberries—Make cuttings, *ff*, if not already done. Secure improved varieties. Put in cuttings and rooted plants, *m*, *ll*. Read article on Gooseberries page 83.

Drain, *f*, *m*, clay, or other moist lands. Examine drains already laid and keep water courses clear.

Egg Plants—Sow in hot-beds, *ll*.

Fences and Gates—Put in thorough repair. Protect the garden from poultry with pickets or lines of twine stretched around the inclosure a few inches above the fence.

Fruit Trees—Dwarf pears, peaches, cherries, etc., may be planted along borders, *ll*.

Grapes—Plant roots or cuttings, *ll*. Uncover protected vines when mild weather is established. Fasten properly to trellises; lead wire is best for this purpose. Fork in a good dressing of chip manure and bone dust. Be shy of flaming descriptions of new varieties. See "Grape Mania" on page 83.

Herbs—Divide and reset roots, *m*, *ll*, sowing seed at the same time.

Hops—Plant roots, *ll*, providing poles for, *ff*, *m*.

Horseradish—Divide and replant *m*, *l*.

Hot-beds—Make, *ff*, *m*. Where glass sashes are not easily obtained, thin muslin oiled and stretched on frames is a good substitute. Like beds for sleeping they should be in every family. Give air on mild days to those previously planted.

Leeks—Sow, *ll*.

Lettuce—Sow, *f*, *m*, in hot-beds, and, *ll*, in open ground. Fill vacancies in cold frames, *ll*.

Manures should be thoroughly intermingled with the soil. Composting with muck and lime renders them valuable for this. Bone sawings are excellent plant food and easily applied near the plants where they are most wanted. Be liberal in feeding plants if you would be fed by them.

Mustard—Sow, *m*, *l*.

Onions—Sow on well prepared ground, *ll*.

Parsley—Sow, *ll*.

Parsneps—Dig for market or for home use. Leave sufficient for seed, or set out, *ll*.

Peas—Sow on warm borders, *ll*. Place the seed a few minutes in water raised to about 190° to destroy the weevil. Prepare brush, *ff*, *m*.

Plow, subsoil, and trench, *ll*, if sufficiently dry.

Potatoes—Plant early varieties for first supply, *ll*. They may be hastened in growth as described on page 73.

Radishes—Sow at intervals in hot-beds, *ff*, *m*, *l*, and *ll*, in the open ground.

Raspberries—Uncover buried canes, *ll*, if sufficiently warm. Stake up, and cut back to four or five feet high.

Rhubarb—For earliest use force as described on page 83. Uncover protected roots, *ll*, and fork in plenty of manure. Set out new plants, *l*.

Seeds—Secure a full supply. Test all kinds before purchasing largely. Those sown this month may be forwarded by enclosing in a cloth, covering lightly until sprouted and then sowing.

Spinach—Uncover Fall plants and sow seed, *ll*. Thin out for use.

Strawberries—Rake off the Winter covering, *ll*, and top-dress with fine, well rotted manure, hoeing it in.

Sweet Potatoes—Plant in hot-beds, *m*, *l*, to obtain sets for planting out.

Tools—Repair old and procure new and improved that have been tested.

Tomatoes—Sow in hot-beds or in pots in the house, *f*, *m*, and in open ground, *ll*.

Trellises and Arbors—Put in good repair, and erect new where needed.



Trench at least part of the garden plot, 11, if the soil be warm and dry.

Turnips—Sow, 11, in open grounds for early use. If to be forced, sow in hot-beds, m, 1.

Winter Cherries (*Physalis*)—Sow, f, m, in hot-beds, and, 11, in open ground.

### Flower Garden and Lawn.

Before the close of this month a few of the hardiest flowers, as snow drops, crocuses and pansies, may be expected to herald the bloom of Spring. But except where forcing glasses are used, it will require some time yet, and much pains, to bring out the full attractions of the flower garden. Too much haste in sowing flower seeds causes frequent disappointment, and unless in a remarkably early season, it is better to confine the labors to preparing walks, removing rubbish, trenching for borders and making all things ready.

Annuals—The hardier sorts as larkspur, candytuft, mignonette, portulacas, petunias, etc., may be sown in warm borders, 11, if the weather be mild.

Biennial and Perennial Roots—Divide and reset, 11.

Box and Grass Edgings—Plant and trim, 11. Fill defective spots.

Bulbs—Plant, ff, as soon as the ground can be worked. Carnations, Pinks and Daisies—Harden those in frames, or pits, by airing freely.

Draining heavy soils is essential to free growth of flowers as well as of fruit.

Gravel Walks—Rake off, dress liberally with salt to keep out grass. Replenish old with coarse gravel.

Glass covered boxes, open at the bottom, set over Pansies, Violets, Daisies, etc., will bring them into early bloom. The glass should be movable to admit air.

Hedges—Plant Altheas, Buckthorn, or Privet, for screens, 11, if the soil be in working order.

Honeysuckles and other Vines—Prune, m, 1, and arrange upon lattice work or trellises, 11. Plant cuttings or roots at the same time.

Hot-Beds—Make, ff, for propagating cuttings and sowing annuals for early flowering.

Labels, Stakes, Dahlia poles, etc.—Provide what are needed, ff, m.

Lawn—Clear off decayed leaves, twigs, and all rubbish. An occasional thorough sweeping with a birch broom will level worm casts. Top dress with fine manure, as composted muck, bone-dust, guano, etc. To preserve a smooth surface, remove coarse thick tufts, reseed bare spots and roll with a heavy roller.

Ornamental Trees—Remove covering from protected evergreens when sufficiently mild. Pare smoothly the ends of branches broken. Thin out those crowding each other; plant deciduous trees, 11.

Plow and grade new grounds. Plow soil for planting, 11. Pruning trees and shrubs is not advisable now, but where shrubbery is out of shape straggling branches may be taken off. With Rhododendrons, Lilacs, Pyrus Japonica, Almonds and other flowering shrubs, cut out only the twigs that show no bloom buds, leaving others till after flowering. Roses may be properly trimmed for training to trellises. Suckers from worked stocks should be removed at once.

Roses—Plant cuttings and roots, 11.

### Green-Houses.

Fire heat will be wanted only in cold days. Constant attention will be needed to guard against sudden changes; nearly even temperature, not rising above 50° should be maintained. Give air every favorable opportunity, to strengthen the growth, and harden for out door exposure.

Bedding Plants—Harden off a good stock of Verbenas, petunias, daisies, etc., for out door planting.

Cleanliness in this department is of the first importance. Decaying leaves and branches, moss, weeds, etc., should all be removed. Allow no dust. Wash and syringe the foliage frequently.

Insects—Watch against them continually. Prevention is easier than cure.

Oranges, Lemons, Oleanders, Myrtles, etc.—Examine, cutting to a good shaped head, and clear tubs from weeds, moss, etc. Repot and dress those requiring more room and a richer soil.

Pelargoniums—Remove decaying and moldy leaves or branches. Water more freely and give plenty of air as they come into bloom.

Seeds—Sow, m, 1, for out door planting.

Water—Give moderate supplies to succulents, and more frequent applications to woody plants in fair growth.

### Hot-Houses and Conservatories.

The amount of heat required here this month will depend on the temperature without and the state of the plants within, some varieties requiring higher temperature than others. It is not safe however, to allow the heat to sink below 50°. Air may be sparingly admitted when the mercury stands at 70° out of doors. All sudden

chills must be guarded against; they are much more injurious than gradual changes.

Abutilons—Water moderately; trim to well formed head.

Acacias in bloom require plenty of air and little water.

Annuals—Remove to pots those sown last month, and sow for increased stock.

Azalias—Cut back straggling shoots to keep in form.

Bulbs—Keep up succession of bloom with plants from the Green-House. Give fresh water twice a week. Those done blooming may be set away to dry off.

Calceolarias—Repot those needing it, and water freely.

Camellias—Give medium heat and plenty of water.

Avoid wetting the blooms, which would cause early decay. Inarch young plants, m, 1.

Chrysanthemums—Increase by cuttings and layers.

Cinerarias—Shift pot-bound plants, keeping down green fly with fumigations.

Cuttings of many plants, both succulent and woody, may be put in to good advantage. Keep moderately moist and cover the more delicate with hand glasses.

Flowering Plants—Keep up a succession by potting and bringing to heat and light, as great a variety as possible. As they pass out of bloom, lay away, head back, and otherwise regulate as necessary.

Fuchsias—Bring from Green-House to forward the flowering season. Train to a neat round or pyramidal form. Repot young plants.

Hydrangeas, Pinks, Carnations and Daisies—Bring in to force for early bloom, m, 1.

Grapes—Keep the shoots tied in place as they push out. When the flowers are well formed, cut back to one eye above the fruit. Give plenty of air, and syringe freely.

Fruit already swelled should be thinned, removing all imperfect berries, and enough others to make the bunches of good healthy size.

Heaths—Shift to larger pots as necessary.

Insects—Destroy by tobacco fumes.

Lantanas—Repot, f, m, plants for blooming early.

Layer woody plants for an increase of stock.

Musas—Water freely when in a growing state. Change those needing it to tubs of fruiting size.

Peach, Fig, Orange, Lemon, and other trees in pots, now require an even temperature, abundance of air and light. Water freely and keep down insects.

Pelargoniums—Place in a light airy situation, watering rather sparingly.

Roses—Shift established cuttings and those intended for early flowering, to large pots. Harden off a portion for out-door planting, by putting in frames, outside.

Seeds—Sow abundance of annual exotics and natives.

Syringe the walls and plants, and sprinkle the floors each morning to maintain a moist atmosphere.

Water—Give moderately, especially to woody plants. An excess is more to be feared than too little. See that the drainage be perfect.

### Apiary in March.

BY M. QUINBY.

If the air passages of the hive are open, the bees need not be disturbed until the frost about them is gone, when dead bees, wax, chips, and other filth should be removed. It can be done more thoroughly by using an extra bottom board. Raise the hive gently, and put under it the clean board, then clean off the other, and change with the next hive and so on through the whole. Each hive must occupy its old position. Clusters of dead bees between the combs should now be removed before they mold; any combs already moldy should be cut off. As soon as there is a day sufficiently warm for the bees to fly freely, take a look some morning while they are quiet, to ascertain the strength of each colony. If weak, close the entrance so as to allow only one bee to pass at a time, to prevent robberies. Such as are destitute of honey, must be fed—honey is the best material—a box of sealed honey set on the hive is the most convenient method of doing it—sugar made into syrup will do in the absence of honey. Sticks of sugar candy thrust in between the combs are said to be very valuable.... If any stock has lost its queen during winter—which about one in fifty will do—the bees will be very likely to desert on the first good day for flying, and join some other, usually, without any quarreling. The hive left should be immediately cared for, or the bees will carry off the honey. Should the combs in this be bright and new, they are of more value as they are, than to be removed. They may be kept for a new swarm, but they must be smoked once or twice with brimstone, to kill the moth worms as they hatch, otherwise they would injure instead of benefiting any swarm. A colony having diseased brood, or combs which are very old and black, may be advantageously transferred to a hive thus depopulated. The operation is best performed in a warm room, and it is better if there is only one window. The hive to receive the bees should not be frosty, or even very cold. Begin by smoking the bees a little, and inverting the hive, set over it the one to receive the swarm, stopping all passages, strike the lower hive rapidly, but not very hard,

fifteen or twenty minutes, when the upper one may be set aside, and an empty one substituted to receive the remainder of the bees by the same process. Should any refuse to leave by this means—which they will sometimes do at this season—cut out the combs, and with the feather end of a quill, brush them either directly on the combs of the other hive, or by the bottom of it, when right side up—when they will enter. Such bees as have gathered on the window, with those driven into the second hive, may also be swept and shaken down by the entrance, and the hive closed up for a few hours. But should the day be warm enough, put it directly on its stand without closing it, and allow those that gathered on the window to return of themselves after being brushed out. The only danger of stings during the operation, is at the commencement, and not then if smoke is judiciously used. This should always be done as early in the season as possible, otherwise many of the advantages are lost. These directions apply also to transferring into light hives that were set away in the fall for this purpose.... The advantage of feeding rye meal was further indicated last season, especially in sections where there are not many early pollen bearing flowers. One correspondent fed rye and buckwheat meal mixed, and got a swarm in May, which had not occurred before in ten years, it was also several weeks in advance of his neighbors. This is worthy of further experiment, and comparing the results with other seasons. The best way that I have found, is to make a sort of floor a few feet square, and nail around the edge some strips three or four inches wide, so that the bees will not waste it off the edges. A few quarts of meal at a time spread on this, is readily taken by the bees. Unbolted flour appears to be the best, flour mixed with saw dust will do. If flour alone is given, it will adhere to their bodies and they seem to lose time in removing it.... Bees that are in the house may be put out the first fine days, when the air is warm. Set out a few at a time, on stands as far apart as possible, when these have mostly been out and returned, set others between. If the weather is warm enough to make them uneasy in the room, before it is right out of doors, a bushel or two of snow, or pounded ice, will cool them for a time. When opening the door to carry them out, should they be anxious to leave, and be lost by creeping out, introduce some tobacco smoke into the room to quiet them. If severe weather occurs after they are out, the weaker ones may be returned to the house. Close some of the air passages which are not needed now, and confine the animal heat to assist in developing the brood. Clear sunshine with a newly fallen snow is fatal to many bees; they should be confined to the hive, either by shading, or closing the entrance for a few hours at such time. Keep all refuse honey, or that in any hive unprotected by a colony, out of reach of the bees, it is quite sure to induce pillaging habits.

### Furnishing Trees, Vines, &c.

In response to H. C. Parker, of Hillsboro Co., N. H., (for whose very kind expressions we return heartfelt thanks,) and to answer many others, we desire to say, that we grow no trees, plants or seeds to sell—all our surplus goes into the free distribution. When specially desired, we can hand over to some reliable dealer any remittance entrusted to us, but as a general thing we prefer such orders to go direct to the dealers themselves. This is not from any unwillingness to oblige our readers, but from a desire to be as far as possible disconnected with any outside business transactions, where there might be even the appearance of self-interest. We have seen too much of this puffing of manures, implements, etc., in professedly agricultural journals, because the conductors of them were directly or indirectly interested in commission or profits upon the articles recommended.

### Dr. Grant's Graperies not Destroyed.

A report has been extensively circulated that the celebrated Grape Houses at Iona were blown down by the gale of wind on Feb. 10, involving a loss of from \$20,000 to \$40,000, and the destruction of the large collection of Delaware and other grapes. We are happy to announce on the best testimony, from Dr. Grant's own mouth, that the report was groundless. The total damage amounted to just 37½ cents! by the breaking of two panes of glass, (not to mention two chickens killed by a weasel on the same night.) The report was telegraphed to the daily papers by one of the newsmongers of the press, who was alarmed by the unroofing of a stone house near by, and supposed there was a smash up of things generally. Dr. Grant was at the Convention at New-Haven at the time, and, as may well be supposed, suffered not a little anxiety, until his return home with plans already half matured for at once re-erecting the fallen graperies.



### Scientific and Practical Talks about Manures....III.

(Continued from page 40.)

Let us clearly understand the leading points of the two previous chapters. We have assumed: (a)—That nearly all the food of all kinds of plants, is derived from the air; the food floats about in a form so transparent, or in particles so minute, as not to be seen by the eye. (b)—That while some of this plant food is absorbed through the leaves, other portions are taken in through the roots—a part being washed down to the roots by rains, and a part being carried there by the air which circulates in the porous surface soil. (c)—That to increase the growth of plants, we add to the ordinary food, extra supplies in the form of manures. (d)—That owing to the constant change of air, it is impracticable to increase the supply of food around the leaves, in open field culture, and therefore food can only be supplied through the roots, by means of manures placed in the soil around the roots. (e)—That all plants, of whatever kind, are chiefly composed of four elementary substances, viz: *Oxygen, Hydrogen, Nitrogen, Carbon*—there being, besides these, a small amount of mineral matter, which is left in the form of ashes when the plants are burned. Sometimes, also, a little sulphur, or other matter, is found in plants, but not enough to be taken into account here. (f)—It was assumed in the first place, that *Oxygen* and *Hydrogen*, being the elements of water, are probably supplied in sufficient abundance for all the wants of plants, by the moisture in the air and in the soil; second, that *carbon* (charcoal) which is so abundant in all plants, is probably furnished in abundance by the carbonic acid always found in the air to which it is supplied in abundance by the decaying of plants. It was suggested that perhaps additional useful supplies of carbon may be yielded by the decaying of plants in, or on the soil.

Three of the four chief elements of the plant, being thus provided for, we now come (g) to discuss the fourth and last organic element in plant food, viz: *nitrogen*. This is, probably, the most important one to be considered. As previously stated, air is made up of about 21 parts (by weight) of *oxygen* and 79 parts of *nitrogen*. But *nitrogen* itself is not freely absorbed by water, and hence the supply of this element carried to the roots of plants, is not large. Further, there are reasons for believing that *nitrogen* is not directly appropriated by plants, in its simple state. *Nitrogen*, however, combines with *hydrogen* under favorable circumstances, and forms a substance called *ammonia*, familiarly known as "spirits of hartshorn."

\* After printing a few thousand copies of the first edition of our February number, which was hastily sent to press, the manure article, on page 40, was re-written more carefully, some new matter being added, and the final paragraph omitted. The following explanatory note was also added, and being important we repeat it here.—

**CARBON**, an element entering largely into all living substances, whether animal or vegetable, is seen in its nearly pure state in common charcoal—**OXYGEN**, an element constituting fully half of the entire substance of the globe, mineral as well as organic, is never seen in its pure, uncombined state, for in this state it is a transparent gas, like air. It enters into combination with other substances, but is still invisible, just as lime is invisible when combined in mortar.—**HYDROGEN**, which forms one-ninth part of water, and enters largely into many organic substances, is also an invisible gas, when not combined with some other element.—**NITROGEN**, which forms seventy-nine hundredths of common air, and also enters into many organic substances, is likewise an invisible gas when in its pure state.—**AMMONIA**, is a compound of 14 parts by weight of *nitrogen* united with 3 parts of *hydrogen*. (*Ammonia* is familiar to most persons under the name of "Hartshorn.")

horn." (See the last explanation in previous note.) This compound, (*ammonia*) is very soluble in water, but it is somewhat rare, and, without some special source of supply, the water around the roots may be comparatively deficient in *nitrogen*, or *ammonia*. This we conceive to be a reason why ammoniacal or nitrogenous manures (those containing *nitrogen* or some of its compounds), are found to be so beneficial to plants.

Let the preceding statements be fully comprehended, viz.: that of the four organic elements making up the bulk of all plants, *oxygen* and *hydrogen* are abundant everywhere—in vapor in the air, and in the moisture of the soil; that *carbon* is also somewhat abundant in the atmosphere and in the soil; but that *nitrogen*, in an available form, is not abundant, and therefore its addition to the soil is likely to be more beneficial than any one of the other three elements named. With this view of the subject, our first question in regard to any proposed fertilizer would be: *How much available nitrogen, or ammonia, does it contain?*

#### PRACTICAL ILLUSTRATIONS AND DEDUCTIONS.

1st. The above theory is strongly confirmed by the experience of all observing cultivators. Weight for weight, pure Peruvian guano has proved to be one of the most powerful fertilizers; and this material, when of best quality, contains about one-sixth part of its weight of *ammonia*, or about one-seventh of its weight is *nitrogen*.

2d. Unburned bones contain much *nitrogen*, in a form to be readily transformed into *ammonia*, when they decay; and in our own practice we have found unburned bones, ground very fine so as to decay quickly, to be one of the best and cheapest manures for all kinds of crops. We should speak oftener and more strongly in regard to the value of bone saw-dust, or powdered bones, but from the fact that the supply is so limited that only few persons can obtain it in quantity. Though bones contain less *ammonia* in a ton than guano, they are sold at a lower price, and have the advantage of being harmless when put directly in contact with seed or growing plants, which is not always the case with guano.

3d. Blood, night-soil, sheep's dung, poultry droppings, and horse manure, are among the best fertilizers, and these yield much *ammonia*. Every one knows how strong is the smell of hartshorn, (*ammonia*) when horse-manure is fermenting or decaying. It should always be composted (mixed) with plenty of straw, or muck, or even with earth, to catch and hold its *ammonia*, and not allow it to escape into the air and be lost.

4th. Urine, (the liquid droppings of all animals,) contains much *nitrogen*. It can scarcely stand in a warm place for six hours, without a strong smell of hartshorn, (escaping *ammonia*.) Urine is so rich in *ammonia*, that not a pint of it should be wasted from either the stables or privies. Almost all the *nitrogen* in the excrements of a milking cow, is found in the urine, while the solid droppings contain but little. Hence the well known low value of cow manure, while the urine is so valuable to plants. In some of the most highly cultivated parts of Belgium, the urine of a single cow sells for \$10 a year.

5th. The straw of wheat, rye, barley, oats, and corn, and others of a woody character, are organic materials, but they are chiefly composed of *oxygen*, *hydrogen*, and *carbon*, and contain little *nitrogen*. As every one knows, they make comparatively poor manures, though they are often valuable to loosen the soil. They yield a little *ammonia*, however; and perhaps their *carbon* is of some value, as stated above.

6th. Pea straw, clover, and some of the grasses, on the contrary, contain a considerable percentage of *nitrogen*. Experience teaches that a crop of clover, for example, when turned under, is one of the best fertilizers.

7th. Fats and oils are chiefly composed of *carbon*, *hydrogen*, and *oxygen*, being almost devoid of *nitrogen*. Who ever heard of pure oil, or fat, being useful as a manure?

9th. Lean flesh, on the contrary, contains much *nitrogen*, and this is certainly a very valuable fertilizer. Take a dead horse or ox, remove the fat, or not, and compost the rest of the animal with a mass of muck or earth, and the manure obtained will highly enrich from ten to fifty square rods of ground, the amount depending upon its previous good or bad condition, and the size and the amount of flesh of the animal.

And so we could go on with other illustrations, which, like the above, indicate that the relative amount of *nitrogen* in each of the articles is a fair criterion for judging of their comparative value as fertilizers. And here we will say, that, just what our theory would indicate in regard to the relative value of these articles as fertilizers, is in almost every case in accordance with what has been the result in practice.

**Caution.**—Many of the makers and venders of artificial fertilizers now publish analyses of their compounds. If this were always done fairly, the analysis would assist in estimating the value of the fertilizer. But, we are sorry to say, this is seldom the case. One mode of deception is, to get a true analysis of an extra good specimen, or selection, and publish this as a fair sample of the article sold in market. Another plan is, to employ some unscrupulous chemist, who has, by fair means or foul, obtained a notoriety, and whose analyses are guessed out in accordance with the wishes of his employer. A third and very common deception is, to give the analysis somewhat in detail, but instead of stating just how much *ammonia* or *nitrogen* it contains, we have figures showing a large percentage of "*organic matter, yielding ammonia*." This is nonsense, or worse! A substance may contain ten to fifty per cent of "*organic matter, yielding ammonia*," and yet not contain half a per cent of *ammonia*. We advise to ignore every fertilizer which is put forth with this specious deception. For ourselves, we would not purchase any manure, which we did not know to contain the elements of 2 to 2½ per cent of *ammonia*, for every ten dollars of its price per ton.

There are certain fertilizers offered to the public, such as phosphatic guanos, and others, the proprietors of which ignore the value of *ammonia*, and base their claims upon the (supposed) value of the phosphoric acid. These we shall refer to in another article, when discussing the mineral constituents of plants, to which so much value has been attached.

Our limits preclude the discussion here of the mode of using manures. We will just add briefly now, that, as manures are designed to be absorbed by the roots of plants, it is important that they be finely divided or pulverized, and be intimately mixed with the soil. No single root of a plant, or small mass of roots, can do the feeding for all the others. The manure must be mingled through the soil, so as to be accessible to all the roots.

It may sound like a paradox, yet the breaking of both wings of an army is a pretty sure way to make it fly.

He is poor whose expenses exceed his income



### Duration of Vitality in Seeds.

That some seeds, under accidental circumstances, have an almost indefinite period of vitality, is evident from the fact that grains of wheat, taken from the hands or the wrapping of Egyptian mummies, several thousand years old, have vegetated during the present century. But such things are exceptions to the general rule. How then may we ascertain with considerable certainty whether the seeds we purchase are worth the money? Many experiments have been tried, and reports made, but not always with great accuracy. The following account is the most reliable, we can present. It is understood of course, that the seeds are kept under good circumstances—never in a hot, damp atmosphere.

Cabbage seeds, cauliflower, broccoli and savoy—good for four years.

Lettuce, spinach, carrots, radish, onions, parsneps, peas, beans and other leguminous plants—good for one or two years.

Beets, celery, cucumbers, melons, squash, pumpkins, gourds and the like—good for ten and more years.

Turnips, mustard, endive, sea-kale, asparagus—good for three or four years.

Tree-seeds—not to be depended on after the second year.

Oats, wheat and barley—good for three or four years.

Annual and perennial flower-seeds—good for two or three years.

Melon seeds have been known to vegetate when fifty years old. Some careful gardeners prefer old seeds of the cucumber and melon tribe, because they think that new and plump seeds produce plants which make a rampant growth of vine, but bear little fruit, and that late in the season.

Rye has been known to vegetate when forty years old; kidney-beans, when one hundred; and raspberries when sixteen hundred (?); the Sensitive plant when sixty years old.

And here, a word upon seed-saving. It is of the greatest importance for the farmer and gardener to do this work well, as upon it his success greatly depends. It is with this, as with the breeding of valuable stock. He who gives his attention to it and becomes successful, will attract the notice of others, and his seeds will command abundant purchasers at the highest prices.

To preserve seeds well, they should generally be gathered when fully ripe, be well cleaned, dried in the shade, (not by strong fire-heat) and kept in a cool place, free from moisture. There are a few exceptions to this. Some seeds,—as horse-chestnut, acorn, maple, evergreens, grapes, apples, etc.—should be planted before they become dry, else they will not vegetate well. All seeds liable to be attacked by insects, such as peas, turnips and radish should be occasionally examined, and passed through a sieve, to clean them from dust and other matters likely to attract vermin. It is of the greatest importance to label seeds carefully, at the time of gathering them. A number of sorts, as of melons and squashes, are gathered at the same time, and as they look much alike, they get mixed, or their distinctive names forgotten. When planting comes around, what confusion? And if the mixed seeds are planted, what increased confusion at the fruiting-time?

Since writing the above, we see it stated that the seed trade of Boston amounts annually to three millions of dollars. Ten tons of turnip-seed were sold there last year, and the same of beet seed. Of mignonette, 500 pounds only just supplies the

market. The seed trade of New-York and Philadelphia must be much larger—we have no statistics on hand.

For the American Agriculturist.

### Treatment of Breeding Heifers—How early should they Breed?

The first season of breeding with the young cow is a critical time, and her treatment then has much to do with her future character as a milk-er. Much of the popular prejudice against early bearing, say from the age of twenty to thirty months, is owing to the fact that animals with calf at this age are neglected, and do poorly. Said a distinguished breeder of imported stock, "If I want a good mother in any kind of animals, I put them to bearing early." It would not perhaps do to say, the earlier the better, but we have no doubt early bearing is better than late, if the young animals can have good treatment.

It is a well known fact that the treatment of the seed kernel before the shoot makes its appearance above ground, has much to do with its returns in harvest. Abundant supplies of food, just moisture and heat enough at this time, push out the young shoot vigorously, strengthen the roots, and prepare the way for the plant to take care of itself. The same law prevails in the growth of animals. If you wish to make a good milker of a young cow, she should not only be generously fed, and warmly sheltered, while carrying her first calf, but her food should be of a character to favor the secretion of milk.

This is very generally overlooked, and the heifers, even when they have to eat for two, have nothing more than hay, and perhaps not a full supply of that. They are often left to take their chance among the herd, and are driven away by the stronger cattle. A better way is, to give them separate stables or sheds for three or four months before calving, and supply them with extra feed, besides hay. Indian meal, oil cake, cotton seed meal, and other articles yielding oil, have a very favorable influence upon the organs that secrete milk. These organs become well developed, and leave a permanent influence upon the animal. She becomes a better milker for life. A quart of Indian meal and a peck of carrots, added to the daily feed of a heifer at this season, will be found to be a very good investment. With full feed, we can have early bearing heifers, without diminishing the size of the cows. The writer has had them come in at the age of twenty-one months, and make superior milkers. This is probably better economy than to have them go a year longer without making any returns of veal or milk.

X.

REMARKS.—Does not the writer of the above go too far? Judging from our own observation, we think that in the general practice of farmers, heifers are put to breeding too early. Probably more than half of all the cows in this country produced their first calves at two years of age. Neat cattle do not reach maturity of growth and size until past three years of age. As a general thing, nearly as much increase of weight is attained the fourth Summer—or the next six months after three years is attained—as during any previous season. With some breeds, and with good feeding, the full weight may be reached at the end of three years, but not as a general rule we believe. Now it hardly seems reasonable that a heifer should grow as well, when taxed with the extra duty of bearing a calf. It is claimed that early milking develops the milk vessels, but some of the best English breeders do not admit this. How far the loss in development of the

cow may be made up by the gain of a year in the use of the animal is a subject worthy of consideration. As this is a question of considerable practical importance, and one but little discussed as yet, we shall be glad to have the views of observing practical breeders on the subject—not merely theoretical opinions, but the teachings of experience.—Ed.]

For the American Agriculturist.

### Jotham Sparrowgrass with a Tile in his Head.

MR. EDITOR.—"What's comin next," exclaimed Tucker as he saw Jotham Sparrowgrass' team drive up the road with a load of tiles, Uncle Jotham following after as fast as his cane could carry him.

"Should sooner have thought to see old Sparrowgrass on a tin peddler's cart, sellin wash basens and byin rags," responded Jones.

"Guess he's a gwine to set up a krocery shop to supply the Whiteoakers with sass-pans and sich like," remarked Seth Twiggs with a side-long glance at Kier Frink, as he stood leaning against the wall.

"Sass-pans, you fool! The coal men have got beyond that, I ken tell yew, and use tin like other folks. Guess ye better smoke less and see clearer Seth Twiggs," responded Kier Frink, who was tender of the reputation of the Whiteoakers, and felt his toes trodden upon a little.

"He aint a gwine to du nuthin of the kind," added Jake Frink. "Ye see, Uncle Jotham has caught Tim Bunker's disease, and is gwine to finish up that land round the musk-rat pond. He pretends that he don't believe any thing in the Squire's notions, but the fact is, there aint a bigger Bunkerite in town. You see, old Sparrowgrass was born when the sign was in the crab, and he gets at every thing sideways, jest like one of them are fish."

Jake Frink was not very wide of the mark in regard to Uncle Jotham's disposition. Ever since he made an open drain through the rim of his pond, and drained three acres Summer before last he has talked against new fangled notions, and fancy farming a little louder than before. He seemed to have a natural amount of satisfaction in his victory over the musk-rats, and the tadpoles, but no particular delight in the dry land. But I could see all the while, that he was getting up to a new effort, side ways, as Jake Frink says. I loaned him the paper, and found he always had some inquiries to make about draining, how they made tiles, how the water got into them, how deep, they had to be laid, and how they worked. I have frequently found him down at my horse pond lot, running his cane into the ends of the tiles, where they empty into the ditch, as if to make sure that it was real water that was discharging from the hole. He evidently thought there must be some trick about it, that the water could not get into tiles after they were laid. But there was proof in that horse pond lot that he could not very well get away from.

I have been studying that lot some myself, this Winter. It is only two seasons since the tiles were laid there, and you would be surprised to see what a change the surface of the land has undergone. The light bluish clay that I threw out from the bottoms of the drains and spread around upon the surface, has all crumbled to pieces, and got to be about as dark as the rest of the soil. I have noticed all along over the drains, and for a considerable distance upon each side, the ground becomes dry very soon after a rain, and little cracks are visible. The land used to be



so full of water that no air got into it, from November to May. Now the air follows every rain, and every freezing and thawing disturbs the whole mass of the soil several inches deep. The mechanical improvement of the soil seems to go on quite as rapidly in the Winter as in the Summer. Jack Frost, I guess, is about as good a friend as the farmer has, if he would only give him a chance to work. The tiles make a path for him, and he uses up the coarse lumps and clods a little better than any harrow I ever tried.

Uncle Jotham has doubtless seen these things, though he has said nothing and would have probably declared any time within the last three months, that tiles were the greatest humbug out, in his candid opinion.

The conversation I have reported among the wiseacres of Hookertown, occurred last Fall. A few days after I had occasion to go upon the Shadown road to see what had become of the load of tiles. I found Uncle Jotham with three hands and a team, busy making ditches on the side hills around the drained pond.

"Good morning Uncle Jotham. I thought you didn't believe in crockery—rather pizen to the land?"

"Wal now Squire Bunker, to tell the plain truth, this 'ere business has been brewin in my mind ever since that horse pond of yours was dreened off. And when I come to let the water off here, and got my first crop on land that was once under water, I had to cave in myself, worse than the tad-poles, when the water left them. You see, the taters I raised here on these three acres the first season, brought me five hundred dollars delivered at the landing, and that amount of money, ye see, would make tearin work with almost any man's prejudices. I found I could get the Hartford tile down there pretty reasonable, and I jest made up my mind to finish the job. Am I duin it right Squire Bunker?"

I found he had determined to put in drains upon all the side hills sloping down to the reclaimed meadow, leaving the drains there still open. These hill sides embraced four or five acres, and were naturally a heavy clay soil, always wet, until mid-summer. The drains were about three feet deep, and I found he had got a man used to the business, to do the work in the best manner. I have frequently looked over the ground this Winter, and it is a charming sight to see the various colored clays, and rough clods gradually breaking down under the action of frost and rain. The results of course, remain to be seen, but nobody who has seen the working of tiles, can doubt what they will be.

Thus the leaven of new ideas is working all through this region. When one man gets a tile in his field, another is certain to get one in his head, and after carrying it a spell, it is in due time laid, and carries water. When Jotham Sparrow-grass tile drains, you may know the world moves.

Yours to command,

Hookertown, Ct., Feb. 15 ] TIMOTHY BUNKER, Esq.

### Odd Hints for March.

As hay and straw will become drier, with the progress of the season, the supply should be a little increased, for feeding stock, and the quantity of roots not diminished.

Grass-lands which failed to receive their dressing of compost last Fall, may be attended to now, before the ground becomes soft. The manure dropped during the Winter, around hay-stacks in meadows, should be cleaned up and carted away on sleds before Spring opens: if left until May, the grass will be badly injured, if not killed.

Dry meadows will take it kindly if you give them a bushel or two of plaster, or a few bushels of lime, or leached ashes, to the acre, and Winter grain, which got no plaster at sowing time, may well have it early this Spring.

Fruit trees exhaust the ground of its needful elements, and should be manured a little every year. A compost of chip-dirt and barn manure now spread over the orchard, will help the grass and the trees themselves.

Water-courses which are allowed to flow over mowing lands, should be frequently changed, so that all parts of the fields may get benefit from the irrigation, and the grass in no part become rank and uneven. Now, or as soon as the frost is out of the ground, this should be attended to.

If any dead animals—cats, lambs, dogs, calves, cows, horses, etc.—have accumulated around the premises during the Winter, now is the time to dispose of them. Instead of being hauled into some retired spot, to decay above ground and fill the air with noxious smells, they should be taken to some unoccupied corner of a field and covered with six or eight inches of soil: this will not only obviate unpleasant effluvia, but will contribute largely to the manure-heap.

Now is the time to look after seeds, if they have not been already provided. Let every article be the best of its kind, if good crops are expected. The garden should not be forgotten. Peas, beans, tomatoes, lettuce, radishes, and the like, should be provided for before the hurrying season comes.

Now, split rails, and stack them where they will dry well, if they are not wanted immediately on the fences. Look well to all the farm-gates, bars, and bar-posts; let none be out of repair after this month. A broken fence often costs about the value of a crop. \*

### Caution to Bee-keepers.

MR. EDITOR.—While you are in the way of exposing humbug advertisements for the benefit of your readers generally, I would ask a little space for the bee-keepers and myself, particularly. I find that many patent hive venders are very free with my name,—attaching it to recommendations of hives that I never even heard of, as an inducement to purchase their worthless trash. This has been done in some quarters, till my reputation for consistency is in great need of repair. Take a sample of one of the boldest, emanating from some point in Michigan, where it was supposed, no doubt, that it might escape my notice.

"This is the only Patent Hive ever used by Quinby, the greatest Bee Raiser in the United States, who, before it was patented, offered \$120 for his individual right, now sold for five."

And to make it still more like truth, he gives my name among others for reference. Now I wish it distinctly understood that I never offered a dollar for a patent hive yet. That I never recommended any of them but those with movable combs. And to prevent being accused of interested motives, even here, I would say that I have no interest in any of them beyond an individual right to use. Of these rights, I have any number, presented me, even the "Crossbar Hive"!!!

If you would assist in exposing this rascality, it might save some of your readers the trouble of writing, and of my answering numerous letters asking to be further assured of my opinion of this or that hive.

M. QUINBY.

St. Johnsville, N. Y.

A man who is apprehensive of receiving insults is conscious of deserving them. True dig-

nity never can be approached without respect, it is a coat of mail, which will always keep at a distance the contemptible intruder.

### Advertising Information—Gratis...IX.

(Continued from page 38.)

About these days, when the planting season is coming on, it will be well to guard against the specious advertisements of irresponsible and unknown persons, offering wonderful or extraordinary seeds, plants, etc. We are constantly plying with advertisements of this kind from some part of the country, and are trying, at considerable sacrifice of advertising receipts, to keep such matters out of our columns. We may sometimes err on the wrong side, by shutting out a good thing, because it comes from an unknown party. Here are a few more items of "advertising information":

[No. 27.]

One of the largest advertising concerns in the country, is the so-called "N. Y. Farmer's Club." This body affords peculiar advantages for all classes, since anybody can advertise through it without expense, anything desired—positively reaching all those gathered at any meeting, and probably a larger circle through reports of the doings of the Club, in the papers. Though we long since ceased to waste time and patience in a regular attendance upon the Club, we beg to say that we do not now utterly condemn it, for many good things are brought out at its meetings—along with some things not so good. Formerly, when it was almost wholly under the control of the super-phosphate Professor & Co., and chiefly used as a place for retailing large stories, and advertising articles of sundry kinds, we were quite willing to endorse the remark of an old Western farmer, who came to our office after his first attendance at a meeting. Said he: "I thought, from the papers, that your N. Y. Farmer's Club was a great institution, but I found to-day a gathering chiefly composed of old fogies and humbugs, with green-horns, like myself, who dropped in to be enlightened." Latterly there has been a larger infusion of well-informed and well-meaning men—there have always been a few such—and we hope it may yet prove a useful institution. The only remark we have now to make, is, that the distant reader must not place too implicit confidence in anything done, or said, or recommended there, for the very good reason that everybody goes, and says, and recommends whatever may be for his pleasure or interest. The fact that a thing has been exhibited, and talked about, and recommended by somebody at the N. Y. Farmers' Club, must not be taken as a guarantee that the said thing is to be ardently desired by farmers everywhere, and procured at any cost. Here is a case in point:

[No. 28.]

In last volume, page 346, we merely described, without recommending it, a large onion from Portugal, which had been presented to us. A friend, with the best intention, borrowed the onion to show to some of his neighbors, and also exhibited it at the N. Y. Farmer's Club. It was talked about, was admired, and the comparatively "scintless" large onions raised in Portugal were spoken of. A report of the affair was, of course, published in the papers. As the result, we found in the Tribune of Jan. 31st, the following, under the head of "To Farmers and others."

**PORTUGAL ONION.**—The subscriber, having imported a quantity of the seed of the SCENTLESS PORTUGAL ONION, referred to by Mr. — in the Farmers' Club, at their meeting, Dec. 19, 1859, will forward to any direction, postpaid, a sufficient quantity to plant two square rods of ground, on receipt of 50 cts. This Onion is of fine flavor, and devoid of any offensive odor. Address JOHN HOWARD, New-York Post Office.

Not knowing any regular seedsmen of this name, who could have had a stock of the seed of that onion on hand, we were a little puzzled to know how it could have been imported from Portugal in so short a space of time, by any of the seven John Howards whose names appear in the New-York Directory, (including 1 tailor, 1 laborer, 1 carman, 1 exchange broker, 1 grocer, and 2 clerks.) But recalling that one John Howard, now deceased, was a great philanthropist, we thought perhaps our advertising John Howard might be another philanthropist, who, failing to otherwise exert a desired influence over our obdurate people, had concluded to try to bring them to tears, at least, and for this purpose had provided a supply of onion seed from Portugal. Wishing, of course, to obtain some seed of our onion, we at once wrote an affectionate letter to the advertising John Howard, asking the price of one to a dozen pounds, and among other things, soliciting an interview with reference to the purchase. But we fear our one big onion (fortunate that it is large) must suffice for our table all this year. Our letter was duly deposited at the N. Y. Post Office over two weeks ago, but no answer will the philanthropic or onion-thropic John Howard deign to give us. . . . *Memorandum*—Thorburn, Al



len, Bridgeman, and other seedsmen in this city, have plenty of pure imported seed of the Portugal onion, which they will be happy to retail at \$1.50 a pound. As a pound will sow at least 30 rods, enough to sow "two square rods" will cost ten cents!

[No. 29.]

**Egyptian Corn.**—Too late for notice last month, we received a note from a Postmaster in Crawford Co., Mo., enclosing a "circular," which he informed us, was being distributed throughout that State. This contains a glowing description of a wonderful Egyptian Corn.... "Sent by the Pasha of Egypt to our Government.... Most prolific in the world.... Yields 500 bushels to the acre.... Grows anywhere in the United States.... Ripens in 90 days.... Two crops can be grown in a single season, on same piece of ground.... Grows in the form of a tree.... 25 ears have been grown on a single stalk.... Averages 5 to 15 ears of similar shape to other varieties.... 1½ bushels of ears yield a bushel of shelled corn, weighing 65 lbs.... Makes the best of meal, and, when properly bolted, a flour almost equal to wheat flour in color and fineness.... By incurring much expense, enough has been secured for all desirous to try it," etc., etc. [We call for a Committee of Congress to inquire about the bribe paid to our Government by this man, to secure a monopoly of this Pasha seed corn!] Such are some of the wonderful things claimed for this corn, which is, as he says, "a wonder to all who have seen it." A precious small number, we hope—notwithstanding the fact that the advertiser generously offers to send for \$1, not enough to plant 25 to 30 acres, but, "a sufficient amount to grow enough to plant the succeeding year from 25 to 30 acres." Why, one seed ought to be enough to do this, with such a prolific corn. It would seem as if the advertisement itself would be sufficient to guard people against this humbug, for such it is, doubtless; but we are informed from more sources than one, that the picture on the circular, the specious and apparently candid statements, and the efforts of those offered a commission to procure buyers, are successful in gulling a good many verdant buyers to invest their dollars. This humbug hails from Sandwich, DeKalb County, Ill., fathered, perhaps by the same party who last year figured in the Honeyblade Grass Swindle, in St. Louis, but who now operates in Missouri at a safe distance. We advise him to quit this business, and come East, buy out some journal, offer \$2 worth of books for every 1¢ received for subscription, and a big picture into the bargain, also keep a gift-book store in the same building, but under another name, and puff it in the journal, &c. He can thus put on a more dignified air, and perhaps make more money than in selling honeyblade grass or Egyptian corn. We can point him to an example here.

[No. 30.]

**Gift Books.**—A year since we were offered \$100 worth of advertising by each of two "gift-book" men, which was, of course, refused; for we look upon these operators as humbugs. Sometimes a few valuable gifts are given out as baits, but taken as a whole, the thing is a nuisance. One of the parties, on being refused, made a great show of innocence and respectability, and got vouchers all the way from Philadelphia for his good character, and almost demanded the admission of his advertisement. To-day, that man lies in our City prison. He ought to have several companions, who are now lying out of it.

[No. 31.]

**Crippled Doctor.**—Here is one of a class of circulars sent out from this and other cities, got up in an attractive form, and well calculated to deceive the unwary. The writer begins by working upon the sympathy of the reader, telling a tale of former opulence, extensive practice of 34 years as a "prominent practising physician in the State and City of New-York, in colleges, hospitals, etc.... The teacher of many of the learned medical men throughout the Union," etc. Then we have him crippled by being thrown from a carriage, when on one of his errands of mercy; then ruined by the crisis of 1827; and now, in old age, poor, with only one resource—his knowledge and unlimited experience—to gain what will soothe his declining years and "sustain his family." [According to his own account of his age, his family ought to have been grown up long since, to sustain themselves.] He then goes on to speak of his great skill in curing particular diseases—consumption, nervousness, etc., etc., (in short, before the close of his circular, he enumerates about all the diseases anybody has, or dreams he, or she, has.) Now for the meat in that cocoa-nut. He closes by offering to while away his declining years in giving full and succinct prescriptions for the diseases named, at only a dollar each, and says: "Any one of his prescriptions will cost but a single dollar, and will last forever." He decries patent medicines and common doctors generally. From the style of this circular, it is well calculated to deceive. The name of this swindler is not in the City Directory. He does not give his street No., but we are not going to gratify him with a dollar, even to get his autograph. We have spent the dollar, and more, however, in making in-

quiries of old physicians here, and no one has ever heard of the man, in the past or present. He is an arch humbug of the deepest dye, and it is very likely that he is that old physician (James) whose sands of life have been running out for 30 years—that being about his (old) age, as near as we could judge by his looks. We will give our readers one prescription, which they may follow in all cases, viz: *No skillful, or honest, or reliable physician, aged or cripple, practicing in New-York city, ever sends out of it for practice, by circular or advertisement. Every one who does so is a humbug without fail.* The rule applies to every other locality as well as here. We hold ourselves responsible for all damage to patient or "physician" resulting from following this prescription.

[No. 32.]

A subscriber in Kent County, Mo., is informed that the Doctor, inquired about, was a former graduate of the Medical College referred to, but is now none the less a quack for that. In his present character, he would not be tolerated a moment by any of the medical faculty. His pills, extracts, books, secrets, papers, etc., etc., you will do well to give a wide berth. We again caution all our readers against responding to one of the plausible medical circulars, etc., sent out from this City. See also the prescription italicized above. The "pure medicinal liquors" inquired about, are chiefly manufactured in this City, and not so safe or good "in sickness" as the commonest unadulterated whiskey.

(To be continued as needed.)

### Hints on Wire Fences.

To the Editor of the American Agriculturist.

The perusal of an article on wire fences in the volume just closed (p. 327), induces me to offer the following suggestions, founded on experience and observation, as I reside in Illinois, where these fences are constructed in a variety of methods, and have their strong advocates, as well as enemies. For myself I have no doubt of their utility.

The posts should be set every eight feet. The first or corner post and every fortieth post, should be larger than the rest, and be firmly set in the ground, to a depth of three to four feet, according to compactness of soil, and be thoroughly braced. The braces should not be less than twelve feet long. The intermediate posts may be driven in the ground, which is preferable when the ground is not too hard. In driving the posts, a machine similar to a pile driver may be used. The machine is made quite light. To use the machine, we let one end of the bed pieces of the machine rest on the hindmost axle of a wagon, the other end has supports so braced that the bed of the machine may keep nearly a horizontal position. The wagon loaded with posts is driven as nearly over the line of the fence as possible. Should the driver of the machine not be directly over the line in which the post is to be driven, it may be brought in line by moving to the right or left, as one end of the machine does not rest on the wagon. By this method two men and a team can distribute and set as many posts per day, as six men can in any other method with which the writer is acquainted. The posts should be driven until they are at the required height, which is readily ascertained by a fence pattern carried by one of the men.

The posts are pierced for the wires, after setting. Of course they should be set so that the wire will pass through the least diameter or thickness, as this saves boring. The boring should be through the heart wood when practicable—never through the sap wood when it can be avoided. A convenient pattern is made thus: take a board ½ inch in thickness, 2½ to 3 inches wide, and as long as the height of the fence. Plane it smooth, rounding the corners. Mark one end "bottom," and then measure off upon it, points corresponding with the height of the several wires from the ground. At each of these points make a plain mark around the pattern, numbering each point 1, 2, 3, etc., from the ground upward. The marking is best done with a hot iron. Also cut at each

point a hole or mortise, a little larger than the bit to be used for the wire, extend the mortise crosswise say one inch, or ½ inch each side of the center. Make a round ½ inch hole a foot or so down from the top. This is to hang it by upon a large cut or wrought nail driven slightly into the post. The pattern then swings down, so as to bring the mortise holes perpendicularly over each other, along the flat side of the post. The wire holes are then bored in the proper places by inserting the bit through each of the mortised holes in the pattern.

For wire, that which is annealed, and of the best quality only should be used. Many think No. 9 to be strong enough; but it is liable to be broken. The writer in putting up some two miles of fence the past Fall, used No. 8. The coils may be placed loosely upon a reel, or rod, and be unwound from it. The wire is first passed through the straining post, then on through each intermediate post to the next straining post. About a foot of the wire is left projecting through each straining post.

To tighten the wires, the following method has the advantage of simplicity, and is effective. Cut for each end of the several wires a short roller, say six inches long and two inches in diameter, and bore a ½ inch hole near each end, making the two holes at right angles to each other. Fasten the end of the wire to the middle of the roller with a staple [or by thrusting it through a small hole and clinching the points. Ed.] The wires are then wound upon the rollers, first at one end, and then at the other. A couple of iron rods inserted in the holes give sufficient lever power to tighten the wire to any required degree of tension. The holes in the rollers being at right angles, one iron bar turns the roller a quarter around and holds it, while the other is moved. When the tightening is accomplished, to hold the rollers from turning back, wooden pins are put into the lever holes, and left to rest against the posts. A wire being loose at any time, can be tightened by applying the iron bar and shifting the pin.

Boring the posts is preferable to fastening the wire to their sides with staples, for unruly cattle will break through by tearing out the staples. A fence built after the manner described above will answer all necessary conditions for confining cattle and horses. There should be not less than five wires. The wire fence is not completed until three or four plow furrows are turned up against each side.

ILLINOIAN.

[REMARKS. The above plan appears to be a simple and effective one, still, the wooden rollers and pins would not be very durable; and further, this method does not provide for a self-acting and constant tension, to counteract the ever varying contraction and expansion of the wire by heat and cold. We saw some fences in Illinois two years since, in which the wires were wound upon cast iron rollers, one end placed in the post, and the other made large and pierced with holes for levers, upon the ends of which, weights were hung, to rise and fall with the contraction and expansion of the wires. We shall be glad to hear from some of those who have used these rollers, as to their utility, cost, etc., and also to receive a sketch or drawing of one of the rollers, and of a section of the fence fitted up. Ed.]

A nosegay is easily obtained. Four brandy toddies a day for a couple of months, will put you in the way of one that will astonish all your friends.

A Buncombe (buncum) fence was described by a witness under examination in court as: a fence that is bull strong, horse high, and pig tight.



### How to Keep Farm Accounts.

To the Editor of the American Agriculturist:

The idea of keeping farm accounts, as recommended by your correspondent in the January No., page 8, I like very much, but I think he has spread the thing out too much. A plain farmer, like me, gets puzzled over a *journal*, a *ledger*, *stock book*, *wages book*, etc. It seems hardly worth while for a man with an ordinary sized farm to build a separate barn for each kind of hay, grain, and roots. It answers the purpose better to have several divisions in the same building; just so, I think it is better to have fewer books for accounts, and when people find out that it can be done easily and without much "book learning," they will be more likely to try it. My plan is this: I keep with me a little pocket memorandum book, in which I note down very briefly such facts and figures as ought to be remembered, to be transferred, (every night if possible) to the "Diary," which I make thus:

I buy a quire of foolscap paper, stitch the backs together, cover it with pasteboard or thick paper, and label it properly on the outside. In this book I write out more fully the entries in the pocket memorandum, and whatever else I think ought to be kept in mind. Here is a specimen:

April 1st.—Commenced plowing the North lot; ground in good condition—John Glass commenced work according to agreement made Feb. 15th.—Sold "Brindle's calf to butcher Egbert, for seven dollars, to be paid for April 9th.—Repaired my half of line fence next to George Blair.—Bought  $2\frac{1}{2}$  Bush seed corn of L. Smith, at \$1 per bush—to be paid May 1st," etc.

A bound blank book, ruled plain, would not cost much, but as I commenced in this way years ago, and it answers the purpose, I have kept on using the stitched sheets. When a book is filled, it is numbered, and laid away with former volumes for reference. For my Ledger, the only other book I find necessary, I buy a blank book properly ruled, containing about 4 quires. In this I keep a record of all money transactions, accounts with hired help, with persons trusted for articles bought, and with each field. Here is a sample.

Date	P.	WEST LOT.	Dr.	Cr.
1859				
Apr. 13	6.	To 4 Days Plowing @ \$2.50.....	10	50
" 14	"	" 1 Day Harrowing.....	2	
" 17	"	" Seed and Sowing.....	3	25

The column next to the date, marked *P*, shows on what page of the Diary other particulars of the work are recorded. A page may well be devoted to each lot; another to sheep; another to cattle; another to horses; another to swine; another to poultry; another to household expenses; one to each hired man; and so on. Where there are a number of accounts, the book may be paged, and an index placed on the first leaf.

Each account has two pages, one for *Dr.*, the other and opposite one, *Cr.* When a page is filled, the account is balanced, and two more pages taken. I have an account with the farm as a whole, in which it is charged with the cost of the land, all permanent improvements, such as buildings, fences, ditches, new implements, interest, taxes, etc., and whatever is not fairly chargeable to any particular field or crops.

The cash account is kept in the same book. All money received is put on the *Dr.* side, and all paid out on the *Cr.* side. This balanced at any time shows how much is, or ought to be, on hand. At the end of the year, all balances then due from individuals, the amount of the property on hand after deducting for debts due to others, together with the estimated value of the Farm, are placed on the *Cr.* side of Farm account, and a

balance taken, shows what I am worth. This balance compared with that of the previous year, shows which end of the horn I am coming out of. If I have lost money it is some satisfaction to discover the leak where it escaped, so as to stop it in future; if I have gained, it is pleasant to see it in figures.

JONATHAN.

### Frost Work—A Phenomenon.

[The following interesting letter arrived too late to have the engraving made for February. There are many strange phenomena exhibited in the effects of frost upon water, as every country dweller well knows. They are seen in brooks, on frosted windows—in short everywhere. We have not had time to devote to an examination of the case here presented, and if we had, perhaps could not explain it. Water follows regular laws in crystallizing, and perhaps in this case, the expansion of the water in freezing forced some of it up gradually at one point, and it froze on the edges as it rose up, and thus produced the singular hollow tube. This is merely a suggestion at first thought. Some scientific reader will probably furnish an intelligent explanation.—Ed.]

To the Editor of the American Agriculturist:

Having greatly enjoyed the monthly visits of your journal, and knowing you to be an ardent admirer of the varied works of nature, I send a pencil sketch, and description of a singular phenomenon. On the evening of Dec. 29, 1859, Upton R. Maul, Esq., of Harford County, Md., placed on a table in a cold room of his dwelling, a two-gallon tin bucket, nearly full of clear



spring water. In the morning, the water was covered with a thin crust of ice somewhat rough and uneven. Near one side of the vessel was a beautiful triangular prism of ice, that had shot up above the surface, at an angle of precisely sixty degrees. This extraordinary formation was  $4\frac{1}{2}$  inches high, and terminated in an isosceles triangle, measuring  $1\frac{1}{2}$  inches on each of its two equal sides, and  $15\frac{1}{2}$  inches on the third side, but was larger towards the base. It was hollow and full of water, the walls being about one-sixteenth of an inch thick at the top, three-eighths at the bottom, and transparent as crystal. To ascertain whether or not there was an open communication between the fluid in the prism and that in the bucket, the stem of an ordinary clay pipe was introduced, but the end of it rested on ice at the lower part of the column. As a second experiment for the same purpose, the feathers were stripped from a goose-quill, and the small end put gently down the hollow, and it passed through to the main body of water without any apparent obstruction. As the day advanced, the liquid inclosed in the prism gradually congealed, until it became solid. Near the middle of the base there was now seen a circle of about  $\frac{1}{2}$  inch in diameter, presenting the appearance of very fine white moss, coiled up in the shape of a button; while the column was beautifully ornamented by delicate silvery threads, radiating from a straight central line, as regular as the fibers of a small feather, and not unlike them. Upon the whole it was a rare and splendid dis-

play of Nature's plastic skill. This curious specimen of frost work is still in a tolerably good state of preservation, at this date, and has been examined and admired by many gentlemen of the neighborhood.

And now, Mr. Editor, I earnestly solicit from scientific gentlemen, an explanation of the probable causes that led to this strange result. By what law of congelation did this portion of ice ascend above the surrounding level? Why did it crystallize in the form of a triangular prism? Why did it rise at an angle of precisely sixty degrees, rather than in a perpendicular direction? Why was it hollow, with the water unfrozen at the top and throughout the column, although exposed to the same atmosphere that covered the bucket with ice? Why did the cavity close up in the morning, when the air was evidently warmer than during the night? Did the water ascend by the influence of atmospheric pressure, or by capillary attraction, or by some other agency?

Harford Co., Md., Jan. 6 1860. THOS. HENDERSON.

### Horizontal Wells.

Some of our cotemporaries are discussing horizontal wells as if they were a new idea. The principle is the same as that of artificial springs, with which most of our readers are familiar. It is claimed that in running a horizontal shaft into the side of a hill, we are more likely to strike a living vein of water, than we would be to go down the same distance perpendicularly. However this may be, it is one of the most convenient methods of furnishing living water in pastures and meadows now destitute. The plan of bringing the water from some high ground at a distance of half a mile or more by means of a lead pipe, is frequently resorted to, and this is sometimes the only resource where the dwelling or barn stands upon high land.

But when the object is to bring water into a large pasture and where any place will answer, it is frequently feasible to bring out a hidden vein of water at the lowest point of the pasture at very small expense. The detection of veins of water is regarded as a peculiar gift, and many have implicit faith in the hazel rod in the hands of these gifted individuals. The rod is said to turn down invariably over the vein. This is sheer nonsense, but there are indications of water veins, which any one familiar with the land for a year would readily detect. Where water is accustomed to stand in Winter, or late in Spring, there must be a natural supply not far beneath. Where spots of grass remain green in a very dry time, or until late in the Fall, there is usually water not far off.

But in any hilly land with a heavy clayey sub-soil, we would not hesitate to dig into any hill-side where there were indications of water. Water is often found at a depth of ten or fifteen feet from the surface, in the dryest time. After the trench is dug up to the head, it may be enlarged to six or eight feet in diameter, stoned up three or four feet high like a well and covered. The drain leading to the outlet may be laid with tile, or common stone snugly covered. Such a spring when once made is just as good as a natural one. Upon the farm where we were brought up there were two of these fountains—in pastures once without water in Summer. Thither sheep and cattle resorted daily for water, and laborers, when they were at work in the neighborhood. Their value to the farm was beyond price.

Agricultural.—What goes most against a farmer's grain?—His mowing machine of course.





A FARM HOUSE—RESIDENCE OF MR. WM. H. SMITH, ADDISON, N. Y.

It is our intention to present from time to time a variety of plans for dwellings, including not only those of large and costly construction, but also those of small size, and involving but comparatively little expense. We present herewith one of moderate size, but rather above the medium cost of well-to-do farmers' dwellings. The expense of this structure was somewhat over \$4,000 we believe; it was built in a thorough manner, entirely by "day's work." The main walls are of brick, painted dapple gray. The roof and "trimmings" are of wood, the trimmings painted with "burnt sienna," and the roof with blue. The elevation plan as well as the internal arrangements are, we think, open to some of the same objections that were made to the plan published on page 297 of last volume (Oct. No.) The roof is too light, and the bay-windows and some other parts too heavy.—THE GROUND PLAN shows an ample supply of pantries and closets, which is a very desirable provision in every dwelling, and one not usually sufficiently looked after. The relative position of the main rooms does not strike us as the best for a farm house where there is much work to be done, and a prominent end to be kept in view is to "save steps." In the plan,

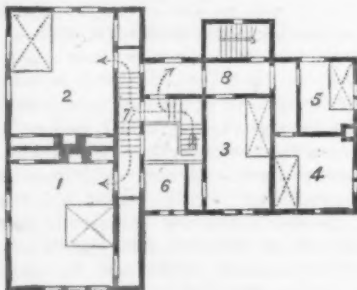


Fig. 3—CHAMBER PLAN.

Fig. 2, the kitchen, E, is too far separated from the Dining-room. There are two objections to this; first, the cooked food, dishes, etc., must be carried through two or more doors and a hall in passing to and from the dining-room and kitchen; and, second, as either the dining-room, D, or the

bed-room, H, must here be used for a sitting-room, the matron of the house must be too far from the direct oversight of the kitchen-work. But not to go into particulars, we think that for our own use we could make an entire re-arrangement of the rooms, pantries, etc., with advantage. Others may think differently, and we leave each to study the plans, and derive such useful

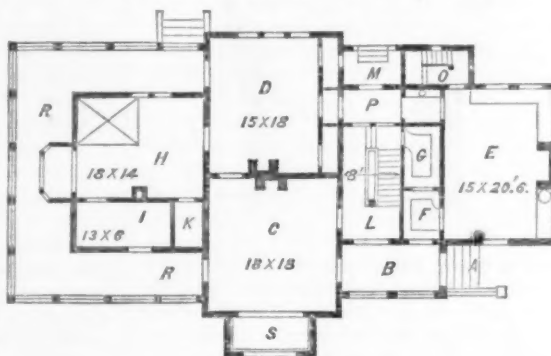


Fig. 2—GROUND PLAN.

A Entrance. D Dining-room. P Hall. I Dress-room.  
B Vestibule. E Kitchen. M Rear Entrance. K Closet.  
L Hall. F Pantry. O Back Stairs. R Verandah.  
C Parlor. G Store-room. H Bed-room. S Bay Window.

hints as they can. The CHAMBER PLAN, fig. 3, has five bed-rooms, 1, 2, 3, 4, 5—the cross lines showing the positions of the beds; 6 is a bath-room; 7, stairs; 8, chamber-hall. The supply of closets is apparently ample. The special arrangement here, we understand to be that of the proprietor—the architects claiming that with the same general plan of structure, a great variety may be made in the internal arrangement of rooms. This building, which was designed by Messrs. Saeltzer & Valk, architects of this city, is given by them as an illustration of what they propose as a "new American style." We must frankly confess that we are not pleased with it, but since they call in question our individual taste in architectural matters, we have given them another opportunity to lay their plans before the public for a verdict. Whatever is worthy will be found out and adopted. If the "new style" gives general satisfaction we shall be disappointed, and acknowledge our want of taste.

If a miscreant sets a stain upon your character, you can't wash it away with his blood; the foul fluid would pollute rather than purify the stains.

### How to raise Early Potatoes.

A dish of new, mealy potatoes, about the middle of June, is not to be despised. They are good upon the table, and by no means bad in the barrel, on their way to a lively market, at one to two dollars a bushel, and upwards. There is a difference of a month or two in the time required by different varieties to mature. This fact is often overlooked by farmers, and they continue planting only the late sorts, and have no new potatoes until August. Early varieties are a first essential in getting an early harvest. The Mercer or Chenango will mature in about twelve weeks, and with forcing, in ten. It is not so apt to rot when forced, as when planted late. The early Sovereign, Carpenter, Studley's Seedling, Wendell's Seedling, Dykman, and the early June, require a still shorter season, say from six to twelve days. In almost every section of the country there are early potatoes, probably quite as good as any of these.

There are several methods of hastening their maturity. A favorite method with the German market gardeners is, to bring the seed potatoes in barrels into a warm room, about the first of March. The eyes start rapidly, and in about two or three weeks they are ready to plant. Another method, which we have practiced for some years, is to start the potatoes in a gentle hot-bed, about the middle of March. The tubers are cut in halves, and laid flat side down upon the bed, as thick as they can be placed. They are then covered with about two inches of garden mold, and the sashes are put over them. As soon as they are up two or three inches, they are ready to transplant. They should be removed carefully, separating the roots with as little breaking as possible, and put in the drills where they are to grow. As they do not yield a full crop under this treatment, they can be planted closer, than in common field culture, say in drills thirty inches apart, putting the hills twelve inches apart in the drill.

A warm, sandy loam, sloping to the south or southeast, should be selected for this crop. It should be well manured with horse dung, about half of it applied in the drills. Some manure their grounds for early potatoes in the Fall, and this is, we think, a good plan for that part of the manure which is applied broadcast. Fresh horse-dung in the drills raises the temperature of the soil, and hastens their growth.

REMARK.—To the above, written by one of our associates, we will add that we have succeeded well on a small scale, thus: Two or three weeks before the time when it will probably do to plant out, take pieces of turf or sod, say four to five inches square, and put a piece of potato in each. These are set closely together where they can be watered as needed, and can be exposed to sunshine. Whenever there is a cold night, or "cold snap," straw is put on to keep them from freezing. They sprout and fill the turf with roots. At the proper time the pieces are set in the open ground, one piece in a hill, and the growth is hardly checked. The turf itself also acts as a manure to aid the growth. In this way two to four weeks may be gained.—PUB. ED.]

Question for discussion by the (N. Y.) Farmers' Club: Is the use of hose beneficial to corns?



## Blinks from a Lantern.....XVII.

BY DIOGENES REDIVIVUS.

## MARKET DAYS.



Farmers seldom stop to consider the time consumed in marketing their products, or the bearing of ready sales upon their prosperity. There is a wide difference in this respect, between the British and the American farmer. The former has his regular market days, occurring once a week or fortnight in the busy part of the year, in his own neighborhood, where he can sell any commodity he has on hand, at the average market price fixed by his own class and by the lively competition of purchasers. The latter has no regular market day, and peddles his products generally at such prices as his own necessities compel him to take. The one makes large sales with little loss of time, and generally at a profit; the other makes small sales, with great loss of time, and often at a sacrifice, because he feels that he must sell what he has brought with him over a long rough road.

The want of good market facilities is one of the great drawbacks to our husbandry, and is often the reason why farmers get discouraged and turn their attention to other employments. Let us turn the light of the lantern a little upon this subject. To illustrate the condition of farm sales in this country, take the case of Andrew Stokes, who owns a snug farm of two hundred acres in Pomptown. He carries on a sort of mixed husbandry, like most of his neighbors, and for the last twenty five years has spent Tuesday of each week in marketing the products of his farm. His trip is fourteen miles, and to be in season for the morning sales, he has to leave home at two or three o'clock in the morning. He has adopted the system of consuming the most of his vegetable products at home. He peddles veal, mutton, lamb, pigs, butter, cheese, eggs, apples, quinces, cranberries, and a little of every thing produced in his neighborhood. His sales in the course of a year, perhaps, amount to five hundred dollars—which have cost him his time and the use of his horse and wagon for fifty days in the year, worth at least one hundred and fifty dollars, or about a third of the amount of his sales. It will be seen that this is an enormous tax upon the farmer's industry.

Yet the case of Mr. Stokes is by no means an uncommon one, though the tax is more than an average, by reason of his greater distance from market. Most farmers pursue the same plan, selling all through the year such articles as they have to dispose of in small quantities, at the nearest market town. Some spend two days in a week in this business, others perhaps not more than one day in two weeks. The sales are generally made without any accurate knowledge of the market, and for the benefit of those who are experienced in trade, rather than for their own. The merchant knows that eggs are worth twenty five cents a dozen, but the farmer does not, and sells at twenty because he happens to be in debt to the merchant, and wants to square up. He sells his grain, butter, and cheese a little under the market for the same reason. The man of trade, who keeps himself posted upon the markets, has the advantage over him at every point.

The English system of market days has several advantages over our hap-hazard and miscellaneous sales scattered through all the days of the year. In the older northern States, the population is dense enough to sustain regular market days, and the effort should be made immediately

to introduce them, and give them a fair trial. Every county with fifty thousand people or more, might establish days of sale, at four different points, on successive Wednesdays of each month, bringing every farmer once a month within a few miles of a market frequented by thousands. The present system should be wholly abandoned, and the buying and selling of farm products, should be concentrated upon these days.

A first advantage of this arrangement would be to bring every farmer within easy reach of a regular home market, where he could sell every thing that he produces. The sales of the farm would be transferred from the present peddling system, to a wholesale business transacted with dispatch. Instead of spending a whole day in disposing of ten dollars' worth of truck to as many different purchasers, the sale would be made in a few minutes to a single individual, the money be pocketed, and he might be on his way home. Instead of any doubt hanging upon his mind that he would be able to sell advantageously what he produced, he would be stimulated by the ready sales to produce all he could. It would make farming much more of a cash business. Now, multitudes see very little cash, except at the end of the year. They carry their products to the country store or village, and barter them for such articles as they need, settling but once a year, if as often.

It would also bring the purchaser to the producer, instead of sending the producer to the purchaser. Or rather, it would institute a place of meeting for the two, where both parties would have the advantage of competition in sales and purchases. Neither could take advantage of the other's ignorance, for every man would know to what point the market prices would settle. The reports would be upon the ground, and every man could examine for himself. Instead of offering his articles to a single purchaser, he would have, perhaps, a hundred inquiring for them, all being on the ground for the express purpose of buying. It would introduce into the country, something of the business activity and pressure witnessed in the large city markets. All coming together for the express purpose of trade, the sales would be made with dispatch. This infusion of enterprise into a class that are now so isolated upon the farm, would be of incalculable advantage. It would soon show itself in many ways in the improvement of agriculture.

It would also tend to equalize the prices of farm products. Now, many of these products have no standard value, and one is surprised to find ten, fifteen, or twenty per cent difference in the price of potatoes, apples, milk, butter, cheese, and other articles in communities very similarly situated. These fairs, or market days, would soon attract attention, and would be thronged by purchasers from all parts of the country. The competition of these individuals would tend to equalize prices. The reports of the markets would be published, and farmers would know what price to insist upon, and when to hold over any description of articles, for a second day.

This system of sales, too, would have a tendency to provoke a healthful emulation among farmers, in regard to the quality of the articles offered for sale. They would see the advantage as they can not now, of presenting every thing in the best possible condition. There is a difference of fifty per cent made in two articles of butter. The one is little better than soap grease, and the other has a clean, waxy appearance, hard, yellow, and sweet as the flowers of the grasses from which it is manufactured. Farmers would soon be educated in these differences, by seeing them

continually brought out, and affecting market values. In many ways these market fairs would operate to diffuse the most valuable information among our rural population, the knowledge that most immediately affects their business.

It would also foster a division of labor upon the farm. If there was a sale equally ready, and profitable for every thing, the farmer would prefer to simplify his business, and rely mainly upon one thing for his profits. Thus we should have dairy farms, stock farms, sheep farms, and in every respect a more perfect division of labor. By giving his attention mainly to a single branch of husbandry, the farmer would be likely to master its mysteries, and could hardly fail to make it more profitable. These are some of the more obvious reasons in favor of the English system of market days. The matter is already exciting attention in this country, and a few of these fairs have been held with a good measure of success.

## Home-made Corn Brooms Again.

ANOTHER METHOD DESCRIBED.

To the Editor of the American Agriculturist:

When a boy, I learned to make corn brooms in a different manner from that described in the January *Agriculturist* (p. 3). I will give my method and your readers can choose the one best adapted to their wants: Put the but-ends of the brush in warm water to soak awhile. When sufficiently softened, tack one end of a strong twine to the broom handle, about three inches from its lower end. Fasten the other end of the string, which is about two feet long, to a small round stick upon which you step with both feet as shown in the annexed engraving. Lay on the brush, one stalk at a time, and give the handle a turn sufficient to hold each new stalk firmly. Continue putting on and winding, until three layers have



been secured, pulling upward as the handle is turned to tighten the string. Now commence another row nearer the lower end of the handle, and proceed as before, finishing the third course or tier with the longest and finest brush. Wind the cord around snugly a few times after the brush is all on, and fasten the end with a carpet tack. To make a broad or flat broom, more of the brush may be put upon two opposite sides than upon the other portions. Then tie the two ends of a string the right length, slip it over the handle and to a suitable place upon the broom, and sew it as already described in your previous article. You now have as neat a broom as you can buy, and stronger than most of those in market. With a little practice they can be made very quickly. When a boy I thought I was making money when manufacturing brooms at a dime apiece. Wire can be used instead of twine.

Ripley Co., Ind.

JOHN BENNETT.



### About Frost.

A knowledge of the laws which govern frost, is of great importance to the farmer and gardener. In a friend's grounds last year were several grape-vines, some trained on trellises in the open garden, and others on walls and fences. In the desolating frosts of June, those on the trellises lost both their foliage and fruit, while those on the walls and fences lost only a small part. Those on a wall which had a cornice projecting a foot wide over the vines, were not injured at all. Where, however, a stray branch projected from the wall more than a foot, it was frost bitten up to that very point. And all the young tomato and other plants on that border outside of the projection of the cornice, were cut to the ground.

These facts illustrate the principle to which we wish now to refer. In a cool and clear afternoon in May, the gardener has learned to predict a frost at night, unless clouds, or a wind arise. When the sky is clear, the heat of the soil passes off into the upper air without obstruction, but if there are clouds in the sky they throw the heat back. Sometimes, the gardener finds frost on his plants, when the mercury of the thermometer is several degrees above the freezing point, because the air on the surface of the ground is colder than that above.

On windy nights, even with a clear sky, there is less danger of frost than in calm weather. The wind does not prevent radiation of heat, but it brings in warmer air from above, and causes it to sweep along the ground and impart to the soil a portion of its heat.

As clouds intercept the heat and cause it to descend to the earth, so any other substance placed over the soil will produce the same result. The ground under the branches of trees in a forest is less frozen in Winter than on an open plain, chiefly because these branches obstruct radiation of heat. So in a garden, the branches of a tree or bush have often been noticed to protect tender plants from Spring frosts.

The cornice on our friend's wall, which protected his vines, did not shield them from "the fall of the frost," as the expression is often used, but prevented the rapid radiation of heat. Heat radiates in every direction, and nearly half the heat from such a vine was intercepted and returned by the wall and the cornice.

On any cold night when frost is apprehended, all we need to do, is to place over our tender plants something to obstruct radiation. A thin cambric handkerchief has sometimes protected tender plants, while all else around was killed. It is best generally to place the covering a few inches above the plants.

### Burning Charcoal in Kilns.

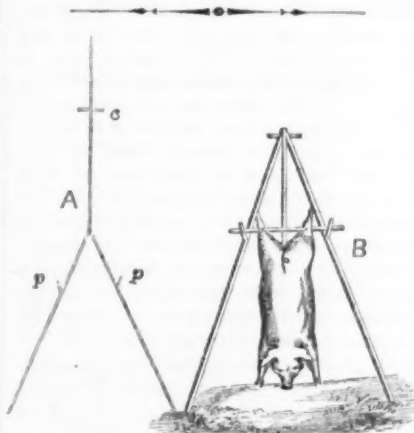
We gave in our last, some account of the common mode of preparing charcoal in raised mounds or pits. This process is not economical of wood, but has in its favor, that the wood can be burned where it grows, with little expense for carting.

A better method for those who have capital, is to build kilns of brick expressly for this purpose. We have occasionally seen these in the vicinity of iron furnaces, where large quantities of charcoal are used in smelting ores. This is the common method in the old iron districts, where wood in the immediate vicinity is becoming scarce. The kilns are built near the furnace, and the charcoal is burned by those who run the furnace, as a matter of economy. Frequently large tracts of woodland are purchased mainly for this purpose. The wood is cut and corded, and after

seasoning, is hauled to the furnace. These brick walled kilns are made either rectangular, or circular, according to the taste of the builder. A single wall of brick is strong enough for this purpose. The walls should be run up about nine feet high, and then be arched over with brick. Two tiers of wood can then be set, one above the other, much in the same order as in the common coal pit.

Occasional holes of the size of a brick both at top and bottom, are left for ventilation. This gives the burner perfect control of the fire. The usual capacity of these kilns is from forty to fifty cords, which are burnt in about three weeks. The yield is from fifty bushels to the cord and upward, according to the dryness of the wood used. This is an advantage of about twenty five per cent over the common method. A usual estimate is, that twenty five cords of dry wood, or thirty cords of green wood, will make a thousand bushels burnt in a coal pit. The cost of the process of burning in kilns, including the filling, coaling, and discharging, is about one dollar a hundred bushels. Coaling in the woods can not be afforded short of two and a half dollars a hundred.

With these hints, every one will be able to tell whether it will pay to put up a kiln or not. For men who work iron furnaces, or who have occasion to use large quantities of charcoal in their business, it is undoubtedly the cheaper method of supply. It might also pay farmers who have large tracts of woodland and a good market for charcoal within ten miles.



Suspending Slaughtered Animals.

The simple method of suspending and elevating slaughtered animals, given on page 332 of last volume (Nov. No.) has called forth several other methods. Some four or five have given a plan similar to the one here sketched, the drawings of which were forwarded to the *Agriculturist* by Mr. Sam'l Schooley, of Clinton Co., Ohio. Provide three rails, or better, three round poles, say 12 feet long, or of such length and size as may be required for the animal to be suspended. Lay these down on the ground as shown at A. Two of them are to be chamfered off (not shown in A.) and the other fitted between them, and the three joined at the angle by a loose pin of iron or strong wood. One or more pins, p, p, for the gambrels, are to be put into each of the two poles, and a cross-bar, c, for a handle into the other one, as shown in the cut A. The joining of the three pieces is not well shown in the engraving.

To use the apparatus, lay the frame over the animal, place the gambrel upon two opposite pins, and then raise up the three pieces, as shown at B. The apparatus is very simple, is easily made, can be carried from place to place, and be packed away by simply taking out the pin. Mr.

Schooley says, a man with a boy, or at most two men, can readily elevate the largest beef carcass.

### Protection of Sheep—Tax the Dogs.

(We ask especial attention to the communication below. Let some public spirited individual in each county gather facts and statistics, and the mass of people will be startled at the result. We suggest that every Agricultural Society appoint a standing committee on sheep-killing dogs, to report once a year, or oftener.—Ed.)

To the Editor of the *American Agriculturist*.

I notice in the current January *Agriculturist* the remark: "We cannot keep sheep on account of the dogs." In many parts of the country, that has been, and is supposed to be an inevitable evil attendant upon that department of husbandry. But there is a remedy and a power in the agricultural community to protect their interests in this most profitable and pleasant department of their industry.

In Massachusetts and Connecticut, laws have been enacted levying a tax upon dogs, of \$1 each, and on every slut \$5; each dog thus taxed is registered in the Clerk's Office of the town where owned, and must also wear a collar, with the owner's name on it. Every dog not thus taxed, registered, and collared, may be killed by any one. Sheriffs, Constables are required to kill them, or, after request, are liable to pay a fine if they refuse. Any one keeping or harboring an unlawful dog, is liable to a fine of \$10. Dogs thus taxed, etc., are protected from destruction under severe penalties. If found destroying sheep, their lives are forfeited, and the owner required to pay all damages. The moneys thus levied, constitute a fund with which to pay for destruction of sheep by dogs undetected. Every State in the Union should have such a law, and farmers must work for it.

Two years ago, having learned that one man in this county had ninety sheep killed in one day by two dogs, and his neighbor \$100 worth of Cotswolds (I believe) at the same time, and by the same dogs, with the assistance of a few gentlemen, in different towns of Southern Berkshire, I commenced gathering facts. I had reliable information, from farmers who had suffered, that in this half of the county, in the five preceding years, dogs had destroyed sheep to the value of two thousand five hundred dollars! Men were incredulous when I told them this, until I showed them the items and names. These were laid before a full meeting of the Housatonic Agricultural Society, and a vote passed, unanimously, requesting our Legislature to pass a law similar to the one now in force. After this the Massachusetts State Society took the matter in hand, and, in consequence, the first enactment was modified, and made more efficient. The result has been very satisfactory; the law works well.

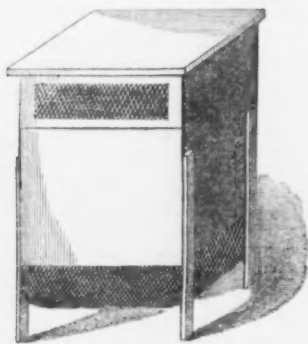
According to ascertained facts, the farmers of Berkshire County suffered a loss of one thousand dollars annually by the ravages of dogs among their sheep. Still the evil had existed so long, that many thought there was no remedy, and some who had sheep killed, even in the sheds, only a few days before my requesting the particulars, neglected to answer my letters. Farmers in the Legislature were afraid to take hold of it at first, from fear of unpopularity, and only when influenced by a strong public opinion and numerous petitions, did they move.

All I have to say to my brother farmers is, go to work by circulating petitions to your Legislatures; and, if need be, gather up facts, to show the reasonableness of the demand for protection, and refer to the enactments of Connecticut and Massachusetts as good precedents. It may cost a little time and trouble, but it will pay well if you wish to raise sheep. Then a good flock, with good care, will yield a good profit.

Berkshire Co., Mass., Jan., 1860.

F. WHITING.





Transporting Bees.

Large shipments of bees have been recently made to California, and the demand for the Pacific Coast, as well as down the Atlantic, and other distant points, is increasing. Several inquiries have been addressed to us for information, as to the best mode of preparing them for transportation, when to be carried over the water, and especially when to be subjected to a change of climate in passing through the tropics. We can not better answer these queries, than to give the accompanying illustration, which we sketched from one of a lot of hives, passing through this city on its way to California. The hive was of the common box form, having drawers at the top. A narrow strip of board was nailed upon each of the four corners, which projected down about six inches below the bottom of the hive, to form temporary legs. Over the open bottom of the hive a sheet of wire-cloth was nailed, its edges being bent up, and tacked to the edge all around. This formed an open-work box, hanging down some four inches, or within two inches of the bottom of the temporary legs. The drawers were removed, and wire-cloth nailed over. This arrangement secures free ventilation, and access to air and light, without allowing the bees to escape. When carried on land, the hives were turned bottom upward, but when taken on shipboard, they were set in their natural position. We learn that by this arrangement there has been little loss among the hundreds of swarms that have gone to California during the past four months.

For the American Agriculturist.

#### How to Raise Turkeys.

One of the grandest sights about a farm house in the Fall of the year, is a noble flock of turkeys. What lordly struttings of the old gobbler, raking the ground with his trailing wings, making broad his caudal phylacteries, and ejecting wind from his swelling breast with the fierceness of a locomotive! What gobblings of his eldest sons, as they ape the manners of the father, and essay to lead the flock afield! What iridescent colors glow upon the glossy feathers of the whole flock, as they pick their morning meal! The noblest of all birds in the farm yard, or upon the table, the turkey should become a universal favorite, wherever there is room for him to follow his native wandering habits. Though as thoroughly domesticated as the common hen, they can not be confined to as narrow quarters with profit. It is only upon farms where they can have a good range, that they can be raised to advantage. No kind of poultry pays a larger profit, as the most of the food is gathered from the field, and the price is always high. Farmers in Connecticut and Rhode Island pay a good deal of attention to this crop, and market it mainly in Providence and Boston. Two hundred turkeys, worth three

hundred dollars at the door, are frequently raised upon single farms.

No State excels Connecticut in the size and quality of its turkeys, and a few hints from the note books of some of our best poultry raisers will be acceptable to your readers. This is about the time, when these birds begin to think of their future broods, and if not already done, the breeder should immediately make

**A Selection of Stock.** Two years old birds, both male and female, are to be preferred, if you desire fowls of the best quality. The males should weigh twenty-five pounds and upwards, and the females not less than fifteen pounds. By careful selection, a few breeders have originated a variety of large bronze turkeys, the males of which at maturity weigh thirty-five pounds and upward. Other things being equal, the larger and stronger the stock, the more and better birds the breeder may expect to raise. The hens of a year old will lay earlier, but they will not produce so strong chicks.

**Nests.**—Though the hens are prone to stray off and steal their nests in woods and retired places, they may be induced to lay in more convenient spots, by preparing nests for them. Some build these of small stones near the fence by the road side, covering the top with short boards, to shed rain, and throwing over them a handful of brush, to screen the hen from observation. The more rude and inartificial the nest, the better. An old flour barrel answers a very good purpose, leaving out one head. The barrels should be put in some quiet place, not too near each other, where the mothers will not be disturbed. The nests may be made of old hay or straw, with a lining of forest leaves. A few tobacco stalks, or refuse tobacco of any kind, will guard the nests against lice. To entice the hens into the nests, put in hens' eggs, or artificial eggs made for the purpose. As they begin to lay before the hard frosts are over, the eggs should be carefully carried into the house, and be kept in a cool, dry place, until they are ready to set. Eighteen to twenty eggs make a nest full for setting. To guard the mother against skunks, minks, and other night walkers, put over the mouth of the barrel a lattice work of laths, removing it every morning.

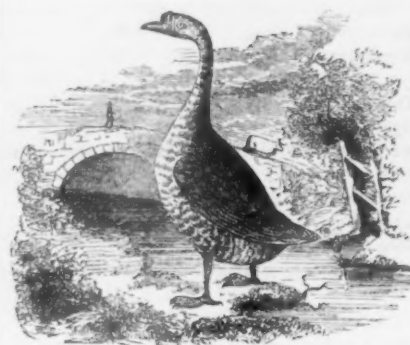
**Feeding.**—This is a matter of great importance. The first day after hatching nothing is needed, and the lattice cover may be kept over the barrel, to keep the mother at home. The second day the young birds may be put into a pen, made of four boards, about eighteen inches wide and fourteen feet in length, leaving the mother free. This board pen will confine the young ones, until they are able to jump over it, when it will be safe to give them more room. The pen should be moved every fourth day, to give the young a chance at fresh grass. For the first week boiled eggs, chopped up fine, and angle worms broken up small, are the best food. After this, curds may be given, and very coarse corn meal. It should be ground for the purpose, more coarse even than hominy. This may be scalded and mixed with sour milk, and a little sand or gravel thrown in, to prevent it from baking in the crop. Many young turkeys are killed by a too exclusive diet of Indian meal. As the young ones grow, they may be fed with buckwheat and other grains.

After they begin to range, care must be taken to house them in cold, stormy weather. Confine them in the barn cellar, or upon the barn floor, where they will have plenty of room. If any of them get chilled, and droop, they should be put in a basket with wool or cotton, and set near the kitchen fire, where they may feel the warmth.

As they grow and begin to shift for themselves, roosts should be provided for them in some place safe from the attacks of vermin. A common roost is a scaffold, made by putting poles upon crotched sticks, ten or fifteen feet high. The poles should be three or four inches in diameter, that they may be easily grasped with the claws. They should be brought up regularly every night to the roosting place, and fed there. The young ones should have a rough pole, extending from the ground or fence to the top of the roost, on which they can walk up, until they are strong enough to fly. After a few days of schooling, they will come home regularly, and go to their places without any oversight. After a month or two, they will forage for themselves, mainly living on grasshoppers, and such insects as they pick up in the fields and woods. The night feeding, however, should be continued, to induce regular habits.

Second broods are sometimes raised, but where the first has been successful, the practice is not advisable. Any surplus eggs of the first laying may be set under hens.

CONNECTICUT.



For the American Agriculturist.

#### Chinese Geese.

There are at least three varieties of Chinese geese which have been imported into this country—the Brown red-legged, the black-legged, and the White. The first two are identical in the color of their plumage, and must also bear close affinity to the larger specimens which are known under the name of Hong Kong.

The prevailing color of the Chinese goose is a lightish brown; the different shades are very harmoniously blended, and are well relieved by the black tuberculated bill and markings of deeper tints of the same color, and the greyish white of the abdomen. Slight variations occur in the color of the feet and legs, some having them of a dull orange, others black; a delicate white stripe of finger-like feathers is occasionally seen at the base of the bill. These peculiarities are said to be hereditarily transmitted. But the White Chinese goose, if it be not specifically distinct, is a variety so decidedly marked, as to demand a special notice hereafter.

There is something in the aspect of the Brown goose—its dark brown stripe down its neck, its bright eye, its harsh voice, its ceremonious strut, and its affectation of seldom being in a hurry, all which seem to say it came from China. If it did originally come from China it has no doubt been domesticated for many hundreds, or perhaps thousands of years. This beautiful bird in its shape and motions in the water much resembles the swan. It is also like the swan in other respects; it glides through the watery element with its neck beautifully arched, its head drawn in, its

breast just settled in the water, its tail a little raised, giving a light and airy appearance, moving on the water with apparently little or no exertion, and we may say, exhibiting

"In all her actions dignity and grace."

The notes are loud and shrill, and are uttered often when a stranger or enemy appears. It is still more watchful than the Hong Kong or African goose. Nothing can stir about the premises in the night but it sounds the alarm. No watch-dog could guard the premises with more vigilance than the Chinese goose.

Although a native of a warm climate, this bird appears very well naturalized in this country. It seems to stand the severe cold of our winters as well as the common goose. The only or greatest objection to them is their early laying, which often occurs in the dead of Winter. The writer once possessed an imported Chinese goose which commenced laying in the month of November, and did not cease until she produced over forty eggs. We have never known them to show any disposition to sit after the Autumnal laying. If liberally fed with oats, boiled potatoes, etc., the Chinese goose will, in the Spring, lay from twenty to thirty eggs before she begins to sit, and again in the Autumn, after her moult, from ten to fifteen more.

They are smaller in size than our common geese, and what they lack in size they make up in prolificness. They are valued for their beauty, their early breeding, and aptitude to fatten. They couple and breed with the common goose. Hybrids between them and the common goose are prolific with the common goose; the second, and third cross are much prized by some, as producing finer birds and of much better flavor; and in many flocks the blood of the Chinese goose may often be traced by the more erect gait of the birds, accompanied by a faint stripe down the back of the neck.

C. N. BEMENT.

### Hungarian Millet for Horses and Cows.

Frequent statements have appeared in the papers, to the effect that Hungarian millet (or grass, as it is called,) when fed to horses, produces stiffness of limbs, and all the symptoms of "founder." We recently, (p. 9, Jan. No.) expressed a doubt as to any such injurious result from proper feeding. In a recent communication to the *Agriculturist*, a Vermont correspondent, Mr. H. Griffin, sustains this view of the subject. He writes in substance as follows:

"I think more horses are injured by a want of Hungarian millet, than by the use of it. I have kept horses and cows upon the hay left after threshing it. They eat it better than herds-grass, and the cows keep in better condition, than on other hay. If horses are allowed to eat it with the seed on, they will be likely to leave the hay, and the effects will be the same as feeding them exclusively upon other grain, as oats or corn. The seed weighs some fifty pounds to the bushel, and is very hearty. I think a tun of the hay, cut before the seed is ripe, is better than a tun of coarse clover or herds-grass. We can raise twice as much Hungarian grass, as we can of the common grasses, and it succeeds on sandy land, where other kinds fail. I sowed a piece in May last, on pasture land, and the yield was 3½ tons per acre before threshing. It gave thirty bushels of seed per acre. I think it would be a good plan in improving upland meadows, to plow and sow with Hungarian millet, and seed with Timothy, mowing the Hungarian the first season, and the Timothy the next."



A NEW VARIETY OF BROCCOLI.

(Engraved for the American Agriculturist.)

### The Cabbage Family.—(*Brassica*.)

A person who did not know cabbage, would be a curiosity, yet very few are acquainted with its first cousins—the Cauliflower, Broccoli, Brussels Sprouts, etc. It will be new to many, that it even has such near of kin—we hardly call them "blood relations," for that affinity belongs peculiarly to beets. But there are intimately connected with the cabbage quite a number of individuals, more refined, and more acceptable visitors at the dinner table where they are in attendance, than the familiar cabbage itself. All of these are descended from a common source, the progenitor of this important family being none other than that very humble, and in itself useless plant, the wild cabbage, found growing among the cliffs of Devonshire and Cornwall, in England. This unpretending wild cabbage, in deference perhaps to its distinguished progeny, is dignified with the high sounding, aristocratic, botanical title of "*Brassica oleracea*." Viewing a large Drumhead Cabbage, one would hardly suspect it to be of such parentage, for its ancestor has no head, being only supplied with small buds and flowers.

The products obtained from this original plant, are among the striking illustrations of what may be obtained by long cultivation—with vegetables as well as with men—that which was a worthless bud only, is developed into a comely form, of great size and great value. Thus, after long schooling in the garden, the straggling wild cabbage is taught, so to speak, to close its buds as in *Brussels sprouts*, to expend its force on the terminal (end) bud to form *Cabbage*, or to combine its flowers into compact clusters and become the succulent *Broccoli*, or *Cauliflower*. Without dwelling upon the mode of producing these varieties, we will only speak now of

**BROCCOLI.**—This is cultivated like a cabbage,

and has a stem much like it; but instead of the head, it sends up a stalk, upon which are long narrow leaves, somewhat straggling. Above these, upon the top of the stalk, grows a warty bud, about the size of the fist, or larger, which consists of the flowers and their stems compactly united. These little heads resemble cabbage in taste, and are cooked similarly, but they are more tender, and of more pleasant flavor. There are two varieties of broccoli, called the purple and the white, from their color.

**A New Variety of Broccoli.**—A few years since, a single plant of the white broccoli was noticed in England, which differed quite curiously from the ordinary mode of growth. In addition to the single stalk, terminating in a small head, as above described, this plant threw out numerous lateral or side stems, each of which produced a head of its own. The accidental variation was what is called by gardeners, a *sport*. Seed was saved, and sown during four successive generations, and all the plants produced, have shown the same variation from the original form; whence it is concluded, that the sport was in earnest, and a new and permanent variety was secured. The *Gardener's Chronicle*, of London, gives an engraving of one of the plants, which we re-engrave, as shown above. It is claimed that this is more valuable than the common sort, because yielding more heads. If it fulfils the expectation of English gardeners, it will prove a valuable acquisition. We shall keep an eye upon it, and if it succeed, make an effort to obtain seed for introduction here, as soon as our friends in England produce enough to spare us a little.

**WONDERFUL YIELD OF CABBAGE.**—S. M. Osborne, Shiawassee Co., Mich., writes to the *Agriculturist* of raising cabbage last season at the rate of 87 tons per acre! It should perhaps be stated that the plot was small, containing one plant—the re-



mainder of the crop, like other great results we read of, was—in paper.

## How Tobacco is Grown and Prepared for Market . . . . II.

(Continued from page 47.)

**FIELD CULTURE.**—After the plants are set, some will be cut off by worms, and some will die from transplanting. New plants should be put in the vacancies as fast as they are made, until about the tenth of July, after which it will be too late for them to mature. To hasten the growth of these late set plants, it is a good plan to give them some extra manure. A mixture of three parts guano to one of plaster will be found to aid their growth. Some apply this in the drills before the plants are set, at the rate of about 500 pounds of guano to the acre. After being strown in the drill, it is covered by throwing up a light furrow on each side, and the plants are then set upon the ridge. If this is not done in the first preparation of the field for planting, the dressing may be applied at the first weeding, about ten days after the plants are set, covering it with the hoe.

The tillage of this crop is much like that of corn, only that it will not bear neglect as well. In the first and second hoeing, the ground should be deeply worked between the rows, to make a mellow bed for the roots to penetrate. The horse-hoe or cultivator should be kept moving as often as once in ten days, until the leaves are so large as to interfere with the operation. Many cultivators only hoe three times, but no crop pays better for a frequent stirring of the soil. Not a weed should be suffered in the tobacco field, if a prime crop is desired.

**ENEMIES.**—One would suppose that so disgusting a plant, and especially one so destructive to animal life, would be secure from the attacks of insects; but no crop suffers more from the depredations of these robbers. No sooner is it set, than the cut worm commences his work near the root, and the supplying of new plants forms a large item of labor upon many plantations. One of the best remedies for this enemy is plowing the previous Fall or Winter. This brings up a multitude of the larva from their Winter quarters, and the frost makes quick work with them. If this has not been done, there is no remedy but to watch for and destroy them by hand.

The tobacco worm, that preys upon the leaves of the plants, is the larva of the Sphinx Carolina. The butterfly is "ash grey; fore wings have blackish wavy lines; hind wings whitish in the middle with four black bands; on each side of the abdomen are five orange colored spots; the tongue excessively long; wings expand about 5 inches." The larva is a disgusting looking green worm, transversely wrinkled, with seven oblique white lines on each side, and a rust colored caudal horn; generally known as the tobacco worm. These insects transform so deep in the ground, that the plow does not usually disturb them. There is no remedy but the thumb and finger. They are exceedingly voracious, and ruin the crop in a few days, unless they are destroyed.

The crop is also liable to be injured by high winds and by hail, when it is in its most succulent state. In some localities, it is liable to be frost bitten, which makes an inferior article. It is more liable to damage from the elements than almost any other crop.

**PRUNING, TOPPING, AND SUCKERING.**—The object aimed at by the tobacco grower is, to throw all the energies of the plant into a few large leaves. For this purpose, its natural habits must be interfered with, in several respects. As the

plants approach maturity, they throw out on the top a blossom bud called a button. This must be removed soon after it shows itself, together with such small leaves as can not be fully developed. The place where the seed stem is to be broken off, depends somewhat upon the strength of the plant. About six inches from the top is the rule; more, in the cases of small late plants, and less in the more vigorous. The number of leaves a plant will mature, will be readily learned by experience. They run from six to twelve leaves in common fields.

A shoot is thrown out at the foot of every leaf stalk, which must be very carefully removed. This throws the sap into the leaves, and expands them. These operations strip the plant of all superfluities, and the field presents a goodly array of long broad leaves, upon stems from two to four feet high.

**CUTTING UP AND HOUSING.**—It takes about three months from setting the plants, to mature a crop. They begin to assume a spotted and yellowish appearance, the velvet pliability of the growing leaf is lost, the veins become swollen, and the leaf breaks easily and with a clean brittle fracture upon the under side. It seems full of sap, and thickens up in texture. This is a critical time with the crop, and demands the closest attention and activity of the cultivator. The value of the tobacco depends upon its undergoing a peculiar fermentation, as it dries slowly in the shade after cutting. Dried in the field, it is worthless, and over ripe plants make an inferior article, however skillfully cured. The fermentation gives a peculiar color to the leaves, which depends somewhat upon the stage of growth at which they were cut, and upon the skill in the curing process. The color preferred, is some shade of cinnamon, though fashion changes somewhat with this, as with other articles of luxury.

All the plants do not reach a uniform maturity, but it is best to take them all clean in the cutting, as the scattering plants are more liable to injury from the sun, the winds, and the rain. When the majority of the plants reach the desired maturity the harvest should begin immediately. The plants require very careful handling, as the mid-ribs of the leaves when ripe, are brittle, and the substance of the leaf itself is delicate. The mid-day sun, if it fall upon the wilting plants, will often hasten the fermentation, and change the color so as to spoil the article. In clear hot weather, the plants should not be cut until two or three o'clock in the afternoon. After cutting, the plants are turned occasionally, and with great care. None but trusty reliable hands should be set about this work. When the dew falls, the plants are put in small bunches of three or four together, and thus left over night. Plants cut just at evening, may be left untouched until the next day at 11 A. M., when they are turned over, and after the sun has had time to dry off the moisture, they may be carried immediately to the shed. The plants cut earlier in the day, and laid in heaps for the night, should be opened as soon as the dew is off, and when thoroughly wilted, or at any rate before 11 o'clock, they should be housed. Every plant should be handled by the butt. Any fracture of the leaf is a serious damage, and puts it into a lower grade in the assorting. There is a good deal of difference between five and thirty-five cents a pound, on which the cultivator should keep his eye in the

**Tobacco Shed.**—In the South, fire is much used in curing. In the North, the sheds are so ventilated that no fire is needed, and a better article is secured. Success depends almost entirely upon the completeness of the ventilation, which

should not only be vertical, but at the sides. The usual plan in Connecticut is, to have a building twenty four feet wide, to give room for two tiers of twelve-foot rails, or poles. The tobacco is hung upon these rails in tiers one above the other, about five feet apart. The building is made high enough to accommodate three, or at the most, four of these tiers. The tobacco poles are supported by joists or beams, five feet apart, at the sides and in the middle of the building. The siding of the barn runs up and down, and every third board is furnished with hinges. Ventilation is also provided for at the bottom, either by raising the whole shed a short distance above the ground, or by having doors swinging vertically on each side of the barn. The lower tier of drying plants should not come within three feet of the ground. The roof, also, has a ventilator extending the whole length of the ridge, and made with valves something like a window blind, so as to furnish air even in showery weather. The leading idea of the whole establishment is, to carry off the moisture of the plants as fast as possible without artificial heat. The roof must be made rain proof, for the plants are greatly damaged by wetting after the drying has commenced.

The number of plants that can be dried properly upon a twelve-foot rail, depends upon their size. The largest plants, say from four and a half to five feet in length, should have from ten to twelve inches space, or from twenty four to twenty eight plants to a rail. Four-foot plants will go from thirty to forty to the rail, and the smaller plants about fifty. The curing of tobacco, either with or without fire, is an art that can only be learned by practice. It requires skill and good judgment that can not be communicated by the fullest description. We will only add further, that in the most drying weather, with a clear northwest wind, it is advisable to close the ventilators on the windward side, and in rainy weather, they should be closed up tight. As the air drying process makes the best article, we give no directions for curing by artificial heat—these may be found in the *Agriculturist* Vol. XVI, p. 54.

After the curing process in the sheds, which takes two or three months, the leaves are stripped, assorted, and packed for market. As the preserving of the leaves whole, is a matter of a good deal of importance, damp weather is selected for this purpose. When the stem is thoroughly dry, the leaves may be safely packed. Tobacco once hanked too wet can not be dried, and if boxed up too damp it will spoil. Three grades of tobacco, and sometimes four, are made in the assorting; perfect wrappers consisting of the best; imperfect wrappers consisting of large broken leaves and the smaller ones; and the balance for fillers.

## Planting Sorghum.

A subscriber writes from Morgan Co., O., as follows. "I am gratified with the encouraging reports on sorghum. I have manufactured three small crops with very good success, and at the same time gained some valuable experience. I would recommend to all intending to plant the coming season, to secure good seed, which is now plenty,\* and use it liberally. Better have a quantity to pull out than be obliged to plant the second time. I find it does well at three feet apart each way, with five canes in a hill when

\*There is considerable inquiry for good seed, which does not appear to be plentiful in this market. Those who have a supply of really good seed, should advertise the fact, stating price, etc.—Ed.]

well suckered. The ground should be finely pulverized and in good condition. The planting should not be done until the ground is warm, say in this latitude from the 6th to the 10th of 5th Month, (May)."

### An Interesting Letter from Abroad.

*Fish Culture—Napoleon's Horses—A new Plant for some Speculator—Asparagus in Sand—Pears in France—French and English Nurseries—Trees sent abroad and reimported at a higher price—Horticulture in England—Various Objects of Interest in England, etc.*

[Our readers will be interested in the varied information contained in the following letter from Samuel B. Parsons, who has been in Europe for more than a year past, gleaned information, and collecting new plants, not only for his own establishment, but for our Government, the Central Park, etc. The letter was a familiar one to his brother, not designed for publication, but we have begged the privilege of giving the following extracts.—Ed.]

"...I have thus found every day something to convince me that under this 'one-man-power,' there may be a concentration of effort in the development of great resources and investigations in physical science which is almost impracticable with us. In the United States, innumerable jealousies are always awakened by any attempt of Government to develop particular interests, and all our advance must be the result of private enterprise.

Some few years ago the Brothers Remy discovered a mode of propagating fish artificially, and with so great facility that their ponds were soon filled. On learning the facts, the French Government at once placed in their hands the means of extending their experiments, and is now erecting a large establishment near Basle. Receiving a note a few days ago from Dr. Coste, that he would be at home on a certain day, I called upon him, with Mr. Bigelow of the Evening Post, who always has a ready enjoyment and appreciation of such things. Dr. Coste is a professor in the College of France, and is educating a class of young men in all the mysteries of pisciculture, (fish culture). His laboratory was very interesting and full of specimens in all stages, from the eggs packed in moss as they arrive from a distance, and those in process of hatching under running water, to the living and swimming fish.

This laboratory of Dr. Coste is simply a means of illustration for the scholars. The establishment at Basle, which I visited in September, is far more extensive; there, large ponds and brooks shaded by trees, shelter the young fish, while extensive brick buildings are provided with furnaces to give uniform temperature, and long ranges of tanks and troughs filled with running water to receive the eggs and the fish just hatched. From this establishment millions of young salmon will be sent by express to all parts of Europe. Dr. Coste mentioned a singular feature in the habits of the salmon which is of great aid to the cultivator. Its instinct leads it, when out in the rivers, or sea, to come back to its own birth place to deliver its spawn. In three months at sea it will grow more than in three years in a pond, and by having a trap to admit of ingress but not of egress to fish of a certain size, the cultivator may always keep his pond full of large specimens grown at sea. This whole subject is one of great interest, and pisciculture would be a source of great wealth to any one in the United States who should now embark in it. There are many details which I can not give here, but which I may one day work up if I ever find myself free from the cares of tree growing and tree selling.

The new stables at the Louvre, are just now objects of interest. Decorated in the Italian style, lighted with gas, cleansed by numerous water jets, and furnished with all the latest improvements, this building affords better accommodation for horses than monarchs enjoyed in old times. One room is 300 feet long and 14 wide, besides a row of stalls on each side which accommodate 82 horses. When lighted up with gas at night, the effect is quite striking. One stable has fourteen stalls for saddle horses; another has ten boxes and a place for washing. On the ground floor are the coach houses, containing more than 60 carriages. Near these are the harness rooms and other offices, while above them are apartments for grooms and others connected with the stables. The number of these exceeds 300, and the most perfect order and military precision prevail throughout. The whole imperial stud and equipage, however, is not here. There are in all, some 300 horses and 180 carriages, a part of them here, and others in the Tuileries and St. Cloud.

I see that Boussingault has just announced a new tubercular esculent called *Schicima*, which grows in the vicinity of Cuenza, New Granada. The plant is a shrub which grows to the height of three feet, and has at its root two different sorts of tubercles; those nearest the surface are yellow and bitter, and are only used for the propagation of the plant; the second tier, situated much deeper, are white, juicy, and so sweet that they can be eaten raw. It is said to bear cold weather well, and it is thought that if it succeeds here, it will be a formidable rival to the beet root, because it is richer in sugar. So, if any one wishes to make a fortune equal to the profits of one of our neighbors, by the Dioscorea, let him send a special mission to Cuenza.

A French architect writes of growing asparagus successfully in pure sand on the sea coast.

In Horticulture generally, the French are far behind the English. The *Jardin des Plantes* as a garden is very meager; the Petit Trianon is the only good specimen of landscape gardening, while good private pleasure grounds are very rare. Dwarf Pear trees have been planted and grown by millions for centuries, and the French certainly well understand their pruning and culture; yet Pears are scarce and dear. I can not buy any variety fit to eat for less than half a franc each (about 9¢.), and for some I am asked twenty francs each (\$3 75). The friends of dwarf Pears may rely upon it that they will never supply our market at home with Pears, if the French have not yet been able to do it. Few standard Pears are planted here and consequently the markets suffer.

The nurserymen and florists of France will not compare with those of England. Of the former there are only two or three large establishments, and these not equal to our best American nurseries. I have just returned from a tour of inspection among English nurseries. I examined carefully one which is said to do the largest American trade. It possesses large specimens of some of the rare conifers, like *Picea Nordmaniana* and *P. Nobilis*, of which, trees 30 inches high command readily five guineas, \$25—a price which no one would pay with us. In general stock, however, and in assortment, it will not compare with the best American nurseries. In ornamental trees and shrubs alone, the species and varieties cultivated are not in number more than one half of those to be found in the nurseries at Flushing. In obtaining new stove and green-house plants, the connection of England with the East gives her nurserymen many facilities, but the prices demanded for some of these new things is almost fabulous. One variety,

six inches high, is now offered at the price of ten pounds (\$50) each. The prices in England are well sustained, while they have been much reduced with us. I am certain that purchasers can buy almost all the varieties of Fruit and Ornamental Trees to much greater advantage in America, than to import from England or France. I found, for instance, our new *Picea*—which Barron at Elvaston Castle says is the finest conifer known, and which we sent to England at 14 shillings sterling (\$3 50 each)—selling at a guinea (\$5) by houses in the American trade, and the identical plants we sent over have doubtless gone back to America with a profit charged on them of some 50 per cent.

The English nurserymen gladly avail themselves of this prejudice in favor of things from a distance, and smile in a quiet way when they speak of it. They deserve much credit, however, for their enterprise which is much aided by such establishments as Kew, and the London Horticultural Society. No private house could afford to employ such travelers as Sir Wm. Hooker and Robert Fortune, and to such are due some of the finest things which have been introduced. Among the collections sent home by a botanist are always many things possessing no beauty except to a man like himself. An American will therefore never be able to order safely without seeing.... I endeavored to see everything, and shall take home with me all the ornamental trees and plants which I consider of any value. You may rely therefore upon having an American collection equal to any in Europe.

England possesses great interest for one who is fond of horticulture. Its rural life is unequalled in any country. The beautiful turf, the numerous evergreen plants and trees, and the high cultivation everywhere, make a tour in England charming beyond description. If you want ruins, you can go to Kenilworth, where an arch reprobate feasted his royal Mistress with almost oriental magnificence. Warwick Castle will give you a good idea of the baronial style of living in feudal times, and with your puny strength of modern days, you may try lifting the sword which Guy of Warwick wielded like a feather.

If you want a union of noble stretches of soft turf, fine old trees, and the most charming ivy covered ruins you ever saw, go to Fountain's Abbey, and see how luxuriously the old monks lived. The impression left on my mind by this delightful old place can not well be described. It fully met all my conceptions of beauty in nature, antiquity, and art. If you would like to see a fine old place, you should go to Blenheim—that gift of the Nation to Queen Anne's favorite warrior—him with the stormy wife. The present Duke keeps up the place well, and its extent gives it a grand character which I found no where else. The vistas are very fine, the trees are of great size, the walks are full of fine curves, and tastefully flanked here and there with evergreens, while a large sheet of water completes the charm. Trentham, the seat of the Duke of Sutherland, is celebrated for the extent of its fruit, forcing houses, and walls. I found Mr. Henderson the gardener full of intelligence, and like Mr. Thompson, of Dalkeith Castle, evidently enjoying his profession.

Elvaston Castle, however, is the most wonderful place for rarities of great size, and for all sorts of beautiful things. I could fill a dozen pages with details of its various attractions, and therefore will not commence.—I intended to have written about some important discoveries I think I have made in vine culture, which, if verified by American experience, will diminish one half the expense of forming vineyards. But I will leave it till I return home...."



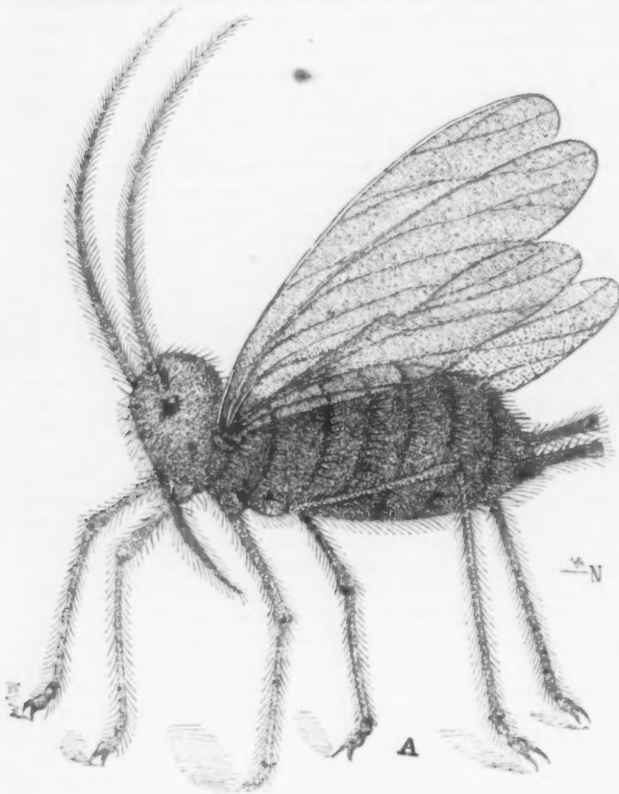


Fig. 1.—ROSE LOUSE (*Aphis rosæ*).—The perfect insect as it appears under the magnifying glass.—N, Natural size.

#### Microscopic Views of the Insect World. I.

BY MRS. CHARLOTTE TAYLOR.

[NOTE BY THE EDITOR.—We are happy to present to the readers of the *Agriculturist* the first of a proposed series of original articles, giving a description of the habits and characteristics of various insects, with suggestions for their extermination, etc.; together with new illustrations taken directly from the insects themselves, and prepared expressly for this journal. We take the more pleasure in this, not only because the subject is one of great interest and importance to every cultivator, but also because we are thus contributing to bring more prominently before an American public the original investigations of an accomplished and indefatigable student of Natural History, whose labors although they have long been highly valued in Europe, have not hitherto been sufficiently known and appreciated in her own country.

A glance at the illustrations given in this number, will indicate something of the interest connected with this subject. We find our rose bushes sickly and dying, and at first wonder what can be the matter with them. A close inspection reveals the fact that the leaves are infested by a vast number of minute insects, scarcely larger than the speck shown at N, fig. 1, and hardly perceptible to the eye. Catch one of these insects, and place it under a powerful magnifier, and there stands forth the huge animal shown at A, as perfect in all its parts as an ostrich or elephant, and more beautiful to look upon. And yet this insect, small as it is, is really a monster in size, when compared with an infinite number of other insects that abound everywhere in nature. Not one in a million of the living animals that literally swarm through the vegetable kingdom, has ever been seen by the common observer. Nor has even the microscope shown a point

beyond which there are not still smaller animated beings. Our ideas of size are all relative. Said a friend recently: "If during some night, all things around us, including our own bodies, were contracted into one-half the present size, the change would not be noticed by us—no, nor even if contracted, or expanded, a million times." The insects which appear so small to us are only relatively so. The mind fails to conceive an animal so small that there can not be a smaller one. But enough on this point now. Entomology, that is the study of insects, is coming to be of vast importance to cultivators. It is beginning to be discovered that by the ravages of these unseen depredators we are losing a large percentage of all our field, orchard, and garden products. As the forests and wild plants decrease, the innumerable hosts of insects attack the

cultivated plants. We leave our contributor to show to the reader some of the wonders with which, by the aid of her artificial eyes—her microscope—she is daily conversant:]

#### THE APHIS ROSÆ (Rose Louse.)

This insect, I presume, is familiar to every one, for the annoyance it gives, if not for its odd and extraordinary habits. It is quite as much of a phenomenon now as it was more than a century ago—when Réaumur announced at a sitting of the

shown at A, fig. 1. Some idea of the natural size may be gathered from N; it is nearly oval in body, about six lines long, and three broad, ex-

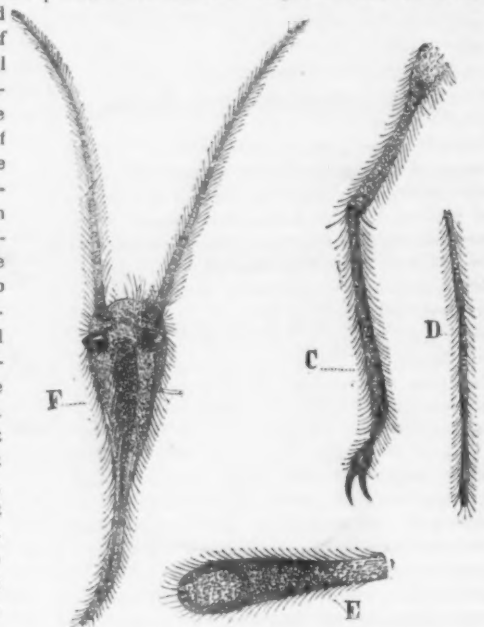


Fig. 3.—C, Leg—D, Last three joints of the Antennæ (or feelers)—E, Honey Tube—F, Front View of the Proboscis.

cept when distended with eggs, B, fig. 2; it is then almost equal in length and breadth. It has six legs of three joints each, C, fig. 3. The antennæ are seven and sometimes nine-jointed. Three of these joints are shown very highly magnified at D, fig. 3. It has two tubes at the end of the body from which the honey dew is ejected, E, fig. 3; and a long proboscis, four-jointed, with which it extracts its sustenance from plants. This is seen, bent under in fig. 1, and a front view is given at F, fig. 3. The body of the insect is of a light green color at one time, afterwards fading away to white or straw color, according to its food; the feet and the tip of the sucker are very black.

When food is scarce, that is to say, when every leaf has been dried of its sap, if one is placed under a magnifying glass it presents the appearance of being made entirely of glass, being quite transparent throughout, but put it on a green leaf, and you may see the sap of the plant circulating through every fibre of its little body. When in health, with plenty around it, it is of a lively green; the legs and antennæ of a pale pink color; or; and with its brilliant, large, black eyes, it has a very animated and sensible appearance as it travels slowly from vein to vein, luxuriating upon the life blood of the doomed plant.

Minute as it is, this insect is one of the wonders of Creation, for as far as is known, it stands alone as exhibiting a peculiar phenomenon



Fig. 2.—Female Aphis, distended with eggs, or young.

Académie des Sciences, at Paris, the wonderful discoveries of Bonnet. It belongs to the second family of Hemiptera—a family inexhaustible in numerical calculation, as every plant known has one, and many, more than two varieties of this family as inseparable companions. The insect, as it appears under a highly magnifying glass, is



Fig. 4.—Young Aphis before the first moulting—G, The two Honey Tubes.

in this division of the natural kingdom ; for here the naturalist finds the very singular anomaly of a creature at one time producing young from the egg, as well as the perfect insect at other times, and without impregnation—"even to the ninth generation," says Bonnet (a great naturalist of Geneva), who, after much patience and care, discovered this extraordinary fact. He transmitted the results of his experiments to Réaumur, at Paris, who announced them to the Academy. A great sensation was produced among the savans, at least among those skilled in this branch of natural history. At the unanimous request of the members of this Institution, the most eminent living naturalists at that time were requested to follow up this marvelous statement. Accordingly, Bazin of Strasburg, Lyonnet and Trembley residing at the Hague, Bonnet himself at Geneva, and Réaumur in Paris, undertook each separately their own experiments, which were eminently successful upon the louse of the rose, of the poppy, of the elder, and of the willow, (*Aphis rosæ*, *A. papaveris*, *A. sambuci*, *A. salicis*.) The account is too long for extracting, but the result was completely proved, and entirely satisfactory to every one. Bonnet, in pursuing his experiments farther, "secluded an individual Aphis at the moment of its birth, then her progeny, and so on successively, until he saw the fifth generation produced without any intermediate pairing."

I have been successful up to the thirtieth generation, and then gave up counting from weariness. In December I placed one *Aphis rosæ*, just brought forth, on a plant of the *Cuphea platensis*.

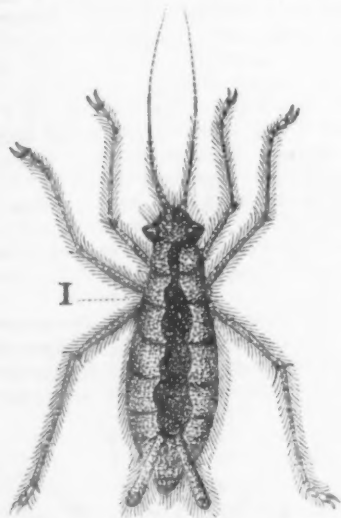


Fig 5.—The first Ecdysis, or changing of skin—The young Aphis' skin.

tra (they are very indifferent what plant they live on.) which was free from insects and healthy. It was in four months literally imbedded in these mites, with not a healthy leaf upon it, and not a male among them all. It is still more extraordinary, that towards the Fall the females lay eggs; these hatch in six or nine days—these insects, after undergoing four moultings, come out at the last winged. They now pair on the wing, and the subsequent generations proceed as represented above, giving birth to young, which in their turn become parents in forty hours!

Another singular fact is, that after a female has paired, she is no longer viviparous, (that is, produces no more living young,) but deposits eggs. There is no doubt that Aphides breed without pairing, and never pair except when winged. Several entomologists maintained they pair before being brought forth, but this was proved erroneous by Réaumur, Bonnet, and others, for there

are no males to be found, except towards the Fall. This is a beautiful provision of our Creator;

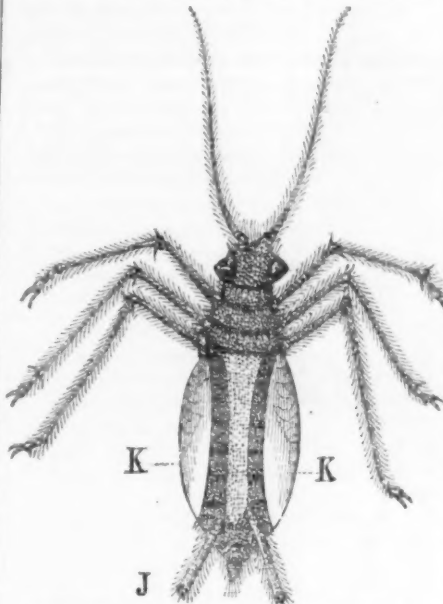


Fig. 6.—The appearance of the Aphis before the last change takes place—K. The wing-cases—the green shade being much darker than the abdomen.

the eggs can stand any amount of cold or heat, whereas the little pulpy tender creatures are easily killed. Therefore, to secure the certainty and safety of the species, and guard against any emergency, the egg, on the approach of Winter, is substituted for the living insect, and those insects which are dependent upon them as food, are provided for, without fail, by the high and beneficent Power, ever watching over and protecting all His creatures, even the most insignificant.

If you examine the insect in fig. 4, you will perceive two small tubes, G, at the end of the body. These are the honey tubes. If you watch an insect under a magnifier, you will perceive that, as fast as it imbibes the juice of the leaf, it ejects a drop of clear sweet liquid from each tube, which is greedily devoured by the very young, who have not strength to puncture for themselves (unless the leaves are very tender,) until after their first moulting. Their antennæ are always laid flat on their backs during the time they are sucking. Ants are exceedingly fond of this saccharine liquid, and, strange as it may seem, they actually carry off the eggs of these Aphides, to rear them in their own nests, for the purpose of ob-



Fig. 7.—The last Ecdysis, or change of skin, when it emerges the perfect winged insect, as seen in fig. 1.

taining this beverage. Any fine Summer day you may see the ants standing beside the Aphides on pear and apple trees, soothing and coaxing them

with their antennæ, evidently soliciting them to discharge this luxury for their accommodation. These little creatures most good-naturedly attend to their wants, and hungry ants can be seen traveling up to make their solicitations, while those who have gorged themselves are slowly descending on the other side. They live together in great harmony on a leaf, seeming to mutually like such companionship amazingly. I have known the ant after a while to become positively lazy and indifferent to work, and remain all day, sometimes weeks, reveling in his newly discovered Capua. Every one execrates these little torments, but they have their place in creation, and would leave a great blank if exterminated. When at maturity they compose the food of almost every insect of the beetle and bug families. Many birds exist on them, and they are also useful in keeping down too luxuriant vegetation.

The best remedy for keeping them subdued is to sift very fine wood ashes (dry) over the plant, also on the under side by holding the earth and the plant in the pot firmly, and turning it upside down. In time, the leaves absorb the strong alkaline qualities of the ashes, not only strengthening and improving the plant, but also rendering its sap totally unpalatable to the Aphides. Then again, they have no power to scramble over such mountains as grains of ashes, and their suckers are not capable of penetrating such brick work; consequently they soon die and the plant is seldom or ever touched by them again. If the dead leaves of the orchard were all raked away and covered with lime before the Winter sets in every year, we should hear fewer complaints of destruction by insects, and the manure beds would be greatly enriched. Nature provides food for all her children with a very prodigal hand, and man must learn to protect himself by investigating her unalterable laws, and studying the



Fig. 8.—Leaf of the *Cuphea platensis*, with eggs upon it. These are not perceptible without the aid of a powerful magnifying glass.

forces operating for and against him, feeling assured a strong and powerful hand is guiding all things to work for his best good, eventually.

#### Wash for Fruit Trees—Insects.

Doubtless, if the soil in which our trees stand were well drained, enriched, and tilled, there would be little need of washing the trunks and branches. For this would keep them in such vigor that they would look quite fresh and healthy. And let it be remembered that no scraping and scrubbing will answer as a substitute for other good management. Yet there are insects infesting most fruit-trees which need an occasional good dose of potash or tobacco to keep them humble. One of these is the Woolly Aphis—a small fellow, with a sort of downy substance covering and concealing his body, and which acts as a parachute to float him about from tree to tree, when he wishes to travel. He infests both root and branch, feeding on the sap of the inner bark, which he punctures in order to extract his food. He has a special liking for old, rough-barked trees, as their crevices afford good hiding places.

There is also the Scaly Aphis, or Bark Louse. This is a dark brown, scaly insect, which has a



special fondness for the bark of the apple and pear tree; and its color being similar to that of the bark, helps to conceal it. Sometimes they are so numerous as to completely cover the bark; this happens often when the trees are growing in poor and wet soil, and are in a feeble condition.

To exterminate these and any other insects which may infest the bark, begin early in the Spring, and scrape the trunk and large limbs smooth. If they have invaded the roots, the surface soil should be removed for several feet, and new put in its place. Then apply the following mixture with a whitewash brush. Two parts of soft soap and eight of water, or two pounds of potash dissolved in two gallons of water, to be applied in the same way. The scaly aphid should be looked after chiefly in the month of June, when they are young and easily killed. If the insects infest the branches, a painter's, or scrubbing brush may be used, taking care not to touch the leaves or buds.

### Preserving Trees from Rabbits.

A correspondent of the London Gardener's Chronicle states that he has used the following mixture to preserve trees from injury by rabbits or other animals gnawing the bark: 4 oz. soft soap, and 6 oz. flowers of sulphur to a gallon of water, with quicklime enough to bring it to the consistency of paint and some (!) soot stirred in the mixture. Apply it with a brush to the trunks of young trees. The animals, it is said, will dislike the odor and leave the trees unharmed. He also recommends the mixture made thinner, to be applied with a syringe to gooseberry bushes, to prevent birds destroying the buds in Spring.

### Wild Pear Stocks.

We see it noticed in one of our cotemporaries, that wild seedlings generally known as perry trees, make the best stocks for Standard pears. Some six years ago, the writer transplanted about one hundred and fifty of them from a pasture into a portion of the garden and grafted them. They have proved to be exceeding hardy, and remarkably thrifty. The finest trees we have, are from these wild seedlings.

In the older portions of the country where the pear has been cultivated, these seedlings are often found in considerable numbers in neglected pastures, and woods. The Spring is a good time to transplant them. The smaller ones may be grafted as soon as they are set out. The larger trees, three inches or more in diameter, are best transplanted in the Winter, or early in March, when the ground is frozen. Those who have these trees upon their farms, should not suffer them to waste their sweetness upon the desert air. A day or two spent in transplanting and grafting, will yield abundant fruit a few years hence.

### King of Tompkins County Apple.

We have now before us some excellent samples of this apple, received from Mr. S. T. Owen, Chemung Co., N. Y. They weigh from 11 to 12 ounces, are globular to conical in form; skin, yellowish, but deeply shaded with crimson red. The color is decidedly in their favor as a market apple. Flesh yellowish, tender, somewhat juicy, and flavor rich, vinous, slightly aromatic, mildly acid and agreeable. So far as cultivated, we believe it has given general satisfaction. We put it in the list as worthy of general cultivation, or a

notch higher than it stands in the last Report of the American Pomological Society.

### Try Your Hand at Grafting Now.

A word or two for the inexperienced fruit-raiser. Some persons appear to think there is a spice of witchcraft in the operation of grafting; whereas, if once learned, it is as simple as setting out a tree. We know many farmers who will hire some strolling quack to do it for them, paying him largely for the day's imposition, beside spending as much time in waiting on him as would have been required to do it themselves.

The excuse with many is, that they have never learned how, and do not wish to spoil their trees in making experiments. To such, we say, make experiments by the fireside, before Spring opens. Cut your cions and bury them in soil in the cellar. Then search your orchard for a few limbs nearly as large as your wrist, which need removal, bring them into your kitchen or workshop, and try your hand at grafting them.

Do you want the particulars? First; prepare some grafting wax, by melting together equal parts of tallow, beeswax and rosin—or a little more rosin than of the others. Have at hand a fine-tooth saw, a chisel or grafting knife, a mallet, and a sharp knife. As *cleft-grafting* is the most common method practiced in orchards, let us try



Fig. 1.

our hand at that. Saw off the limb to be grafted, and pare smooth the cut surface of the end. With chisel and mallet, split open the end in the middle, two inches deep, keeping the cleft open with the chisel until the cion is inserted. Now, cut the cions into a wedge shape at the end, about an inch and a half long [Fig. 1.] having, if possible, a bud at the shoulder of the wedge as at A. This bud facilitates the union of graft and stock. The outer edge of the cion should be a little thicker than the inner. If the stock is quite large, two cions may be inserted, [See fig. 2.] and if both succeed (in the living tree) one may afterwards be cut off. In all cases, see that the inner bark of the cion is brought into exact contact with the inner bark of the stock. Now, cover the wounded part of the stock with grafting wax, to exclude air and rain, taking pains to fill the split between the cions, and also along the stock, and the work is done. Where the stock is small, and in "whip-grafting" small trees, and grafting into the root, it is found convenient to use grafting cloth instead of wax. This is made as follows: Get some cheap cambric or calico (at 4 or 5 cents a yard;) tear it into narrow strips an inch wide, and saturate them in the melted wax. Then, after the cions are inserted, wind these strips around the stock until every exposed part is covered. This is quickly done, and it helps to bind the parts firmly together. The cloth will decay by the time the expanding branch requires more room.

Whip-grafting, or tongue-grafting, is much employed on small branches, as also splice-grafting. Saddle-grafting is another mode often used on large stocks. But of these and the hundred and more methods sometimes practiced by the French

horticulturists, we need not now speak. Let the tyro practice the cleft mode, by the kitchen fire, until he fully understands it; then, on the opening of Spring, he may confidently try his hand on the best trees of his orchard.

### How long do Varieties of Fruit Last?

In our last paper, page 53, in the course of a "Jog in the Fruit Garden," the opinion of certain cultivators was given, that varieties of fruit have only a limited term of existence. Thus: A certain kind of fruit—say the original Seckel pear tree—will live, it may be, only one hundred and fifty years. All buds or grafts taken from it, being only parts or extensions of the original stock, will die whenever the parent tree dies. Every sort of tree has a certain fixed amount of vitality, which it at length uses up, as a garrison does its bread. The most distinguished advocate of this theory, was Thomas Andrew Knight, of London. His own words are these: "No trees of any variety, can be made to produce fruit till the original tree of that variety has attained the age of puberty; and, under ordinary modes of propagation, by grafts or buds, all become subject, at no very distant period, to the debility and diseases of old age."

Mr. Kenrick, one of the earliest pomologists in this country, adopted the same theory. In his "American Orchardist," he speaks of "the finest of the old pears, whose duration we had hoped, but in vain, to perpetuate."....."Except in a few, highly favored situations, these old sorts have become either so uncertain in their bearing, so barren, or so miserably blighted, so mortally diseased, that they are no longer to be trusted," etc., etc. And, it can not be denied that the belief is now widely entertained among fruit growers, (especially pear-cultivators,) that certain varieties have about run out. If they are *not* becoming exhausted, it is asked, why this cracking of the bark and of the fruit, these black spots on the leaves, this stunted growth, this barrenness, and every other sign of debility and old age?

If this doctrine has learned men and many cultivators on its side, so has the opposite. De Candolle, one of the greatest vegetable physiologists of the age, maintains that "varieties will endure so long as man chooses to take care of them, as is evident from the continued existence, to this day, of sorts, the most ancient of those which have been described in books. By negligence, or through successive bad seasons, they may become diseased, but careful culture will restore them and retain them, to all appearance, for ever."....."To say that buds or grafts partake of the age and accidents of the (original) trunk, is improbable, if not impossible, as they can in fact be influenced only by the stock to which they are last transferred." The late Mr. Downing, held the same opinion.\* A tree propagated from a bud or graft (which is but a developed bud,) is as much a *new* tree as one raised from a seed, and may live just as long. A seed has been well



Fig. 2.

His views were, in substance, these: One cause of disease may be found in our mode of propagating trees. A seedling, unmarred by the saw, or ax, or grafting knife, is longer lived than one of the same variety grafted on another stock. A tree, grafted on a stock closely allied to it, will last longer than one grafted on a stock not so related. For instance, the pear of one variety grafted on another kind of pear, will outlive one inserted upon a quince, or thorn, or mountain ash. An unhealthy stock enfeebles the tree grafted upon it. Weak cions often make weak trees. And last, but not least, soil and climate have very much to do in promoting the healthfulness and longevity of trees. Putting these several considerations together, he finds it easy to account for the apparent decay of many varieties of fruit.

termed, "a primary bud:" it is essentially the same thing, the difference is one only of condition: "it is the same embryo in different garments." A tree may inherit disease or health through the seed as well as through the bud.

But, say Mr Knight and his followers, a tree propagated from a bud bears fruit precisely like its parent, while that from a seed is often different. Yes, indeed, but this is so only with seeds of varieties which have been brought into an artificial state of cultivation. In their natural state, seeds reproduce their parents as faithfully as buds or grafts do. It still holds true, therefore, that trees raised from buds, are not essentially shorter lived than those from seed. They are, in effect, new trees, and have in their nature as good a chance for long life as any other trees.

Now, is it a fact that any of our varieties of fruit are running out? Two of the "abandoned, nearly extinct" apples of which Mr. Knight spoke, were the "Nonpareil" and "Golden Pippin." Instead of dying out, as they ought to have done, according to his theory, thirty or more years ago, they are still thriving in perfect health, and are among the most popular apples in England. So too in our country. Many causes have conspired to bring barrenness, disease and death into our orchards; but, after all, none of our fruits are becoming extinct or worthless. Take the old Autumn Bergamot pear, supposed to have originated full two thousand years ago: it ought to be dead and forgotten, according to Mr. Knight, whereas, it is as hale, hearty, and productive as ever, in all our gardens to this day. The old Virgalieu, or White Doyenné, has certainly got into a bad way of late, in many quarters, cracking and becoming spotted and nearly worthless. By some sanguine cultivators—and Mr. Downing among the rest—it was thought that this was owing chiefly to exhaustion from the soil of the elements required by the pear. But the sickly Virgalieu has since been treated with virgin soil, and with "lime, wood-ashes, bone-dust, and blacksmith's cinders, along with barn-manure," according to the prescribed formula, but the patient has not generally got well. Yet, as if to show contempt of all sorts of theories and prescriptions, it has been sick and well for many years just as it pleased. We have seen it robust and fruitful for a period, then pining for a few years, and then, without any change of place, or soil, or treatment, it has become productive and vigorous again. During last Summer, it bore very fine fruit abundantly in some parts of New-York.

Still, undoubtedly, as a general rule, the decline of some of the older varieties of fruit is owing to exhaustion of the soil, and to other kinds of wrong treatment to which we have alluded. Give us good, strong soils, keep the ground in fine tillage as far as the roots extend, wash the trunk and limbs with a solution of potash and water, to keep down vermin, and healthy trees and good crops of fruit may be expected with an ordinary degree of certainty.

#### American Grapes two Centuries Ago.

It appears that several of our native grapes were taken to England, about 1620, the date of the landing of the Pilgrims. In the year 1640, a Mr. Parkinson wrote a book on fruits, in which he described some of the grapes brought over from America. His account of one or two is so odd, we beg to cite it for the amusement of our readers. Will Dr. Grant, or Messrs. Bissell & Salter, recognize the descriptions as belonging to any of their new and costly varieties? Read:

"4th.—*Vitis Sylecstris Virginiana*. This one

sort of vines, like all other wild sorts, runneth on the ground, and taketh hold of whatsoever it meeteth with, but the grapes are small and white, with little sappe or juyce in them, and the kernell twice as bigge as others. There is another sort that hath bigger blew grapes, and sourer in taste. A third they call the Fox grape, and hath a regged bark, and very broad leafe, without any division almost, but dented, and the grape is white, but smelleth, and tasteth like unto a foxe!"

Parkinson speaks of another "which hath slender, reddish branches, with leaves of a dark, greene color, and somewhat thicke also; the fruite is like the other native sorts, having more skinne and kernell than substance or juyce."

#### The Grape Mania.

Heartily as we sympathize in the interest now felt, and increasing through the country in reference to the introduction of fine grapes, we yet think there is danger that the matter will be overdone. The grape is a delicious fruit, but by no means a fair substitute for the apple and pear. It does not furnish the variety of flavors, nor cover as wide a season in its periods of ripening. It can not be used for as many purposes, nor be kept as long in a fresh state. Fruit trees of all kinds, we know, are subject to manifold diseases, but somehow, a goodly number manage to live and bear abundantly. Let us not underrate the good old-fashioned things in our zeal for the new.

One result of the fever for new grapes, will be the palming off of many worthless varieties upon over-zealous purchasers. To avoid such imposition, the only way for the majority of people will be, to wait until some or all of our pomological societies have examined and pronounced on the merits of a variety. For, of course, every man who has a new seedling to sell, will try to persuade himself and others that his plant is the best grape in market, hardy, perfectly hardy, sweet as honey, without pulp, melting, never cloyes, a most abundant bearer, etc., etc. Give a wide berth to these new, superlatively excellent seedlings of which nobody knows save those who have a pecuniary interest in their dissemination.

Another result will be the sending out of old grapes under new names. The Horticulturist for January mentions that a Kentucky grape, known for fourteen years as the "Bullit grape," has lately been brought out with flying colors as a new seedling, under the name of the "Taylor grape." Let us be a little cautious. And if we must allow the mania to possess us a little, let us keep some sober friends by our side to guard us from too great indiscretions.

#### The Gooseberry.

In spite of the mildew which often attacks this fruit, it may yet be grown with success, if properly managed. The points demanding attention are simply these; a selection of the right sorts, proper soil and exposure, and proper pruning.

Such varieties as the Houghton Seedling, Downing's Seedling, and some foreign sorts are, to a good degree, free from blight. To a planter we would say: inquire of the nearest nurseryman and of your neighbors, what sorts succeed best in your locality, and select from them.

As to soil, it is a mistake to suppose that this fruit needs a very dry situation to prevent mildew. It is impatient of drouth, and must have a deep mellow soil where its roots can always find enough to drink. Therefore, let the soil be broken up to a good depth, if it is not naturally deep; and as the plant is a high liver, work in a

lot of manure. Some persons plant their bushes under the drip of trees, for the benefit of their shade; but this is a mistaken practice: it renders the fruit small and more liable to mold. Rather, set them in an open border, well prepared as above, and if the season proves very dry, spread under the bushes some old hay, tan-bark, coal-ashes or the like, for mulching. Every Spring, take off this mulch, spade in old manure, and return the mulch. Prune with a firm hand. This work should be performed in the Fall or early in the Spring, before the sap begins to flow. Let it be the pruner's aim to keep down all suckers, to thin out a large part of the old and crooked wood, and enough of the new to prevent the branches from becoming matted, and to let in plenty of light and air. No fruit-tree or bush requires so severe pruning as this. The berries, too, should be thinned out when a quarter grown.

The gooseberry requires a renewal of the plants about once in six or seven years. For this purpose, select, say in this month of March, the strongest and healthiest shoots of the preceding year's growth, prune out all the buds on the part of the cutting to go below ground in planting, (to prevent future suckers) and bury the cuttings in sand in the cellar, till the Spring fully opens. Then prepare a good soil, and set them in six inches deep, leaving four or five inches above ground. If they are laid a little sloping, it will be better. They will nearly all take root and in the following Spring may be transplanted.

#### Early Asparagus and Rhubarb easily Obtained.

The long cold Winter is over, and the sight of something fresh and green from the bosom of mother earth would be refreshing. The dish of Asparagus, by all who know the article, is highly appreciated. It is among the earliest luxuries that come to the table, and one of the most healthful. At a dollar a bunch, it tastes of the silver, and the citizen, unless he own a mine, must indulge sparingly. But the villager or farmer who owns a rod square of well stocked Asparagus has a mine out of which to dig luscious shoots early in Spring, without a taste of copper, even.

The professional gardener, of course, knows how to get them with his hot-bed and forcing manures. Take good strong roots, three years old, and put them upon a bed of fermenting manure, and there is no difficulty. But for several years past, we have found coaxing quite powerful enough to induce our favorite vegetable to anticipate the season three weeks. We put upon the bed a simple board frame, twelve feet by six, and cover it with sashes. The frame inclines to the sun, about one foot in the six. The outside of the frame is banked up with horse manure, or any coarse litter, to keep out the cold. Between the rows of Asparagus, which are about eighteen inches apart, we sow lettuce, radishes, peppergrass, or any thing else of a hardy nature that we wish to get early. The glass retains the heat of the sun by day, and keeps off the cold by night. The surface heat brings up the seeds in a few days, and a little later, the purple shoots of Asparagus make their appearance. They grow almost as rapidly as in June, and are quite as tender and good flavored.

We secure early Rhubarb by the same method, without disturbing the roots, and put in about a bushel of stable manure, or rich compost around each crown. The sashes are then put over, and no air is given until the crowns begin to make their appearance above ground. Indeed the leaves are not liable to burning, and the sashes require very little attention until the stalks are fit to cut. The Myatt's Linnaeus is admirable for this kind of forcing, and, all things considered, is the best variety we have ever cultivated. The sashes may be put over Asparagus and Rhubarb now.



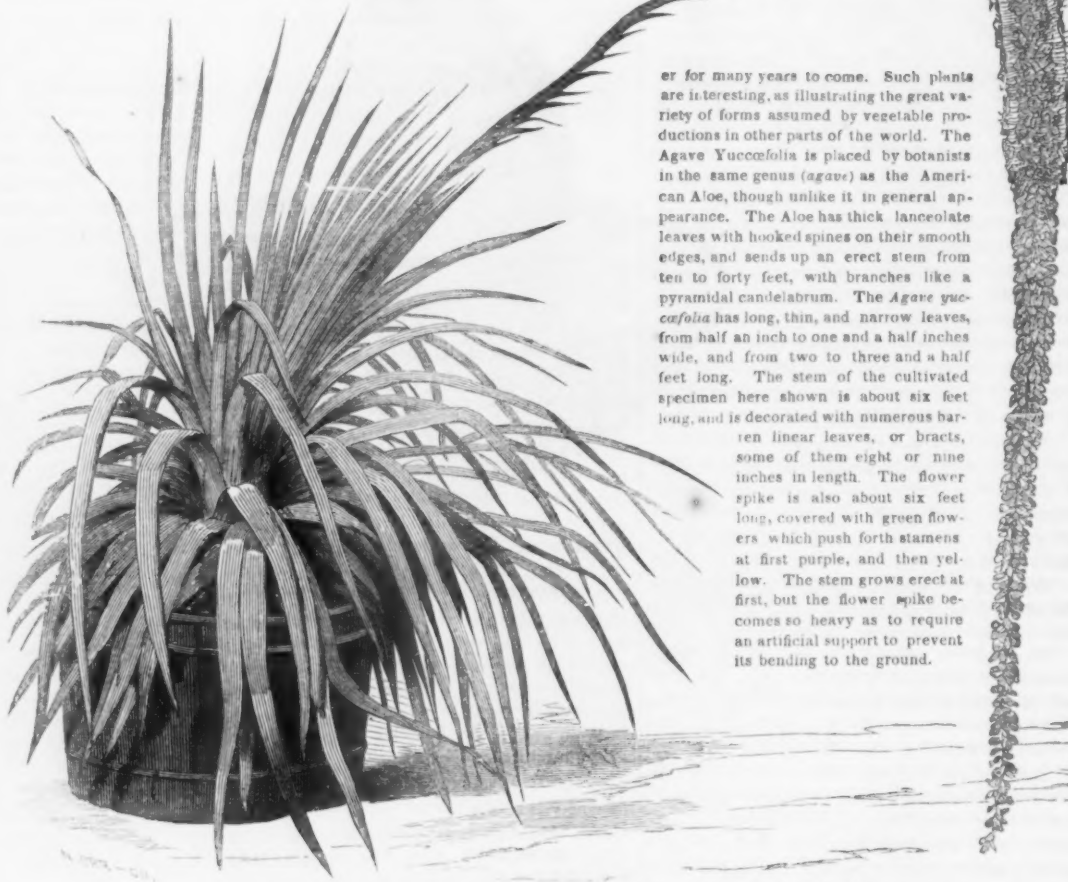
## Wonderful Plants.

Those who have our last volume, if they turn to page 17, (Jan. No.) will there find a description and miniature representation of the Century Plant or American Aloe, rightly named the *Agave Americana*, or American Wonder. It is wonderful not only in its form, but also in its mode of growth, as it lives to an age equal to that of man, then for once, and the only time during its existence, it sends forth a crop of thousands of golden flowers, and dies. In its native Mexican or other Southern home its age is usually from thirty to sixty years, but when transplanted to the greenhouse of the North and subjected to an artificial life, it requires 80 to 130 years to perfect its growth and prepare for its final display; so that those who plant it can hardly hope to ever see it in bloom. The plant described last year was supposed to be 120 years old, and was then just blooming in the Royal Botanical Gardens, at Regent's Park, near London, where are collected living specimens of all known plants from every part of the world. None but those who have visited these Gardens can have any conception of the pleasure to be derived from seeing gathered under a northern sky, the varied productions of the tropical climes. They are so provided with a warm, moist, congenial, artificial atmosphere, that they flourish with almost as much vigor as when growing in their native habitat. (We are glad also to note in this connection, that a movement is now on foot to establish similar gardens in the Central Park in this city. An enterprise of such importance can hardly fail to be carried into execution; and during the present generation we shall hope to see an establishment which shall

rival in interest the much noted gardens of the old world. The men who contribute their time and money to this enterprise will deservedly have a high place in the regard of the multitudes who, in future years, will gather here from our own country, to see a display of the wonders of vegetation now only accessible to the inhabitants of Europe, and the favored few able to cross the Atlantic.]

At the beginning of this year there chanced to be in bloom in the Royal Gardens, another of these curiosities of the vegetable kingdom, an *Agave Yuccafolia*, of which

we here present a sketch, as being an object of interest, and perhaps the only one of the kind that will be in flow-



AGAVE YUCCAFOLIA, In Bloom in January at the Royal Botanical Garden (England)

er for many years to come. Such plants are interesting, as illustrating the great variety of forms assumed by vegetable productions in other parts of the world. The *Agave Yuccafolia* is placed by botanists in the same genus (*agave*) as the American Aloe, though unlike it in general appearance. The Aloe has thick lanceolate leaves with hooked spines on their smooth edges, and sends up an erect stem from ten to forty feet, with branches like a pyramidal candelabrum. The *Agave yuccafolia* has long, thin, and narrow leaves, from half an inch to one and a half inches wide, and from two to three and a half feet long. The stem of the cultivated specimen here shown is about six feet long, and is decorated with numerous barren linear leaves, or bracts, some of them eight or nine inches in length. The flower spike is also about six feet long, covered with green flowers which push forth stamens at first purple, and then yellow. The stem grows erect at first, but the flower spike becomes so heavy as to require an artificial support to prevent its bending to the ground.

Foxglove—(*Digitalis*).

This plant, besides being highly ornamental, is possessed of active medicinal properties. A subscriber in Sibley Co., Minn., writes: "I would like to know if you can get any seed of a plant called *Digitalis*. In Germany where it is well known, it is called fingerhut; I do not know its English name. I am troubled with 'palpitation of the heart', and an excellent druggist tells me that the *Digitalis* would be a certain cure, if I could get it."... The seed of this plant, which is commonly called Foxglove, has been offered in our flower seed list for two years past (No. 42) and is briefly described on page 4 of this volume (Jan. No.). As to its medicinal properties, it is narcotic,\* sedative, and diuretic but when administered in quantities sufficient to bring the system decidedly under its influence, is apt to produce a sense of tightness or weight, with dull pain in the head, vertigo, dimness or other disorder of the vision, and more or less confusion of

\* Narcotics are those substances which given in small doses as medicines, allay morbid susceptibility, relieve pain, and produce sleep; but which in over doses produce stupor, lethargy, convulsions, and death if pushed far.

Sedatives assuage pain by allaying irritability and irritation; they calm, or soothe.

Diuretics produce free discharge of urine

thought. Given under the immediate directions of a competent physician, it is doubtless often beneficial for diseases of the heart and other organs; but as it is an active poison if taken in over doses, or imprudently, we can not advise its use except by the skillful physician.

Foxglove grows wild in many parts of Europe, producing its beautiful flowers in mid-summer. In this country it is cultivated as an ornamental garden plant, and by herb growers for the druggists. A large portion of that produced for the latter purpose is grown by the Shakers at Lebanon, N. Y. The leaves should be gathered the second year, immediately before or in the early period of flowering, selecting only the fresh, full grown. The carefully dried leaves should then be kept dry, in close bottles or canisters, and away from the light, otherwise they soon deteriorate. The dried leaves are kept by nearly all druggists, but unless preserved as above directed, they can not be relied upon after having been on hand a year or so. Our correspondent and others may save their own leaves, if done under the direction of a competent druggist, with his Dispensatory formulas before him as a guide; but considering the dangerous results that it might produce, we must again advise all to avoid its use except when ordered by a good physician.

## Flowers from the Prairies.

We have several communications from subscribers at the west similar to the following postscript to a business letter from A. G. Smith, Young America, Warren Co., Ill: "... Here on the prairies are hundreds of flowers which under cultivation and eastern care and treatment would be acquisitions.... If it suit your convenience, I will be happy to forward specimens in their season for your inspection and analysis; also such seeds as I may be able to secure of desirable varieties...." We shall be glad to receive such specimens and seeds, and as far as practicable will examine and experiment with them. Last year we tried over a hundred specimens of various kinds, but owing to several untoward circumstances, the experiments were not very satisfactory. The coming season we hope to give much more attention to this department. It will not be possible to attend to any small parcel consisting of only a seed or two, and not accompanied with full and definite descriptions. When any one sends plants or seeds, we hope they will send as many particulars as may be, including information whether the plant be annual, biennial, or perennial, the kind of soil and location most natural, apparent preference for light or shade, etc.

### Gardening in Old Times.

The writer's library has lately been enriched by an English book on gardening, written a century and a half ago by Charles Evelyn: a few extracts will amuse the readers of the *Agriculturist*.

"About the latter end of February, graff apples, pears, &c., in the clift, and so continue till the end of March, when the sap arises briskly: the new moon is the best time." [Some moon-guided cultivators have come down to our day.—Ed.] "...Gather herbs in the full of the moon, dry them in the shade, shewing them to the sun a little, only to keep them from being musty." "...Sow winter herbs in the new of the moon!" "...Gather olitory seeds, clipping the herbs with one handfull of the ground before full of the moon." "...In Spring, cover tender flowers and evergreens with mats or canvass, from the farewell frost and easterly winds." "...Sick trees, impaired by removing, and other accidents, are many times recovered by a milk diet, that is, diluting it with a portion of water discreetly administered; sometimes by letting the tree down into a pit of 4 or 5 feet in depth, covering the head and the rest of the tree. [Not very clear this.]

"Continue to cleanse all parts of your garden, and let not your hough be idle when the weeds begin to peep." [A most excellent rule.—Ed.]

"The Peony is a common flower, but yields the fairest and most double blossom of any, and is very becoming in your flower-pots or chimnies.

"The Sun-Flower grows very tall, and therefore is most fit for pots [Some mistake here. Ed.]

"The Syringa Pipe-tree, or lilach, bears a blossom not much unlike the Persian Jessamine. It flowers in April and May, and yields plenty of suckers; but it is a nice plant, and requires the skill of a curious artist for its management.

"There is your rosemary gilded with yellow, and a sort of it variegated with white, very delightful to the eye, which are to be preserved under warm walls.

"Eugh (yew) trees being clipt and reduced to regular forms (the most beautiful whereof are the round and square pyramid,) make the most ornamental trees you can have in your garden."

Such was the horticultural literature in vogue no longer back than about the time this country was first settled. The moon was more consulted than the condition of the soil. In the writings of two thousand years ago which have come down to us, we find occasional scraps which indicate that similar directions were prevalent then.

But as wise as we think ourselves in comparison with our fathers, there is little doubt, that a hundred years hence, our mode of tillage, and our notions of the growth of plants, will be looked back upon as old fogyish in the extreme. Our implements may only be known as curiosities, stored in agricultural museums, and our books be quoted, as we have quoted from the above,

### Spikenard Berries for Fruit.

V. Leonard writes to the *Agriculturist* from Bradford Co., Pa., that he experimented with berries of the Spikenard (*Aralia Racemosa*) and found them to make excellent pies. Others who have tasted them, he says, agree with him. The berries have a peculiar aromatic flavor, and no spice

need be added. He also recommends the berries for making wine which is palatable and medicinal. Spikenard is a perennial herb easily grown, and if liked, will furnish fruit for cooking when most other fruits are out of season. Not having tried it, we can not speak further of its value.



### Inexpensive Household Ornaments...II.

#### EVERGREEN CONES FOR BASKETS, ETC.

Last month, reference was made to using natural objects for ornamenting rooms. There is hardly a limit to the selection which can be made, for almost everything in Nature is beautiful—tree, rock, flower, moss, bird, insect, and creeping thing, all possess some feature, which the hand of taste can use for its purpose. The *Agriculturist* is receiving specimens and descriptions of such ornamental designs, as will make this part of our in-door department an attractive one, and do much, we trust, to create and improve taste. This month we illustrate the method of using evergreen cones for making fancy articles, specimens of which were furnished by Miss Anna Pettinger, Kings Co., N. Y. Fig. 1 shows a card-basket, made chiefly from the scales of white pine seed-cones, and whole seed vessels of hem-



Fig. 2.

lock; cones of other evergreens can be used in the same manner, and any desired shape given to the work. The basket here illustrated, was made thus: Pieces of pasteboard were cut of the right shape to form the basket, when sewed together. A small wire, properly bent and sewed around the edge of each piece, holds it in shape. Then the more ornamental part of the work as

wreaths, rosettes, etc., are made by sewing to the pasteboard small whole cones of hemlock, acorns in their cups, walnut shucks, etc., disposed to suit the taste of the maker. The interstices left, are filled with the scales of the pine cones; yellow pine are the neatest. These are sewed on,

lapping one over the other, like shingles upon a roof, thus hiding the stitches. A very neat rosette is made by cutting off the bottom of a yellow pine cone. The seed vessels of the Tag Alder are pretty for trimming. The scales and other parts may be glued or cemented to the pasteboard, but they look neater when sewed. The separate parts when finished, are joined, and the inside of the basket lined with pink or other bright colored silk, quilted in. Open seams left where the edges of the pieces meet, may be covered by a beading of allspice berries strung on strong thread or fine wire. Similar trimming is sawed around the edges of the basket, and of the handle. Four large acorns inverted and glued to the bottom, form neat supports. ... Fig. 2 represents a picture frame, made of the same materials, the pasteboard being

fastened to the woodwork; or, the cones might be glued directly upon the wood. For such larger objects, larger cones are appropriate. Those of the white pine split lengthwise with a knife, and the flat side laid down give variety.

**Varnishing.**—When all is fastened, the work is covered with varnish, made of an ounce of gum shellac, dissolved in a pint of alcohol. Some give it two coats, adding a little vermilion to the varnish for the first coat, and a very little lamp-black for the second, to darken the shade. A finishing coat of copal varnish gives additional luster.

For the American Agriculturist.

### Music in the Family.

Music is healthful. There is no better cure for *bad humors*, and no medicine more pleasant to take. I can not join those who lament that the piano is heard where once the monotone of the spinning-wheel, and the click of the shuttle, were the only instrumental performances. It is a matter of rejoicing rather, that muscles of iron and fingers of steel, driven by the tireless elements, now perform the laborious work of cloth manufacture, and give leisure to cultivate refined tastes in the household. Music is to the ear and to the intellect, what strawberries, peaches, and other luscious fruits, are to the taste. Who regrets that the forests have been cleared, the walls and fences built, the grain crops made sufficiently easy of cultivation, to allow the addition of the fruit yard and garden for the enjoyment of the cultivator! One of the greatest attractions for old and young when visiting our cities, is the music that may be heard here. Why should the farmer's household not be as cheerful, as full of pleasure, as that of the merchant or the professional man? I know of nothing more genial and heart-warming than to hear the whole family joining in a hymn or song. They will love each other and their home better for it. Songs learned in childhood, are like birds nestling in the bosom; their notes will be heard and loved in after years. The hymn sung by a mother to her little boy may in other days be a voice that will recall him from ruin. The philosopher was not far from



right who said "let me write the songs of a nation and I care not who makes their laws," for the words of song melt their way into the heart. No one can doubt that at least one President of the United States owed much of the enthusiastic support given him to the spirited songs everywhere sung during the canvass. We can yet almost hear the "Tippecanoe and Tyler too," as it used to swell from the thousands assembled at mass-meetings. As a source of innocent and refining enjoyment, a means of right moral training, and a gentle but powerful home magnetism, parents should encourage the practice of music at the fireside. The piano may be too costly, but the accordion, the flute, or the violin, are within reach of all; and even better than any or all of these, is that wonderful instrument, the human organ, fashioned by the Master, adapted to and intended for the richest melody, which may be tuned in childhood, and taught to fill the house with praise and with delight. VOCALIST.

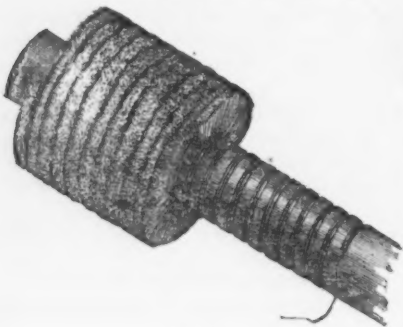


Fig. 1.  
New Mode of Making Brushes.

The common method of making most kinds of brushes has been to draw the bristles into gimlet holes, in little tufts. Mr. Shaler has recently invented a plan of making them in the manner illustrated in fig. 1. A spiral groove is cut upon a round piece of wood; the bristles are then laid on, and with a continuous wire are bent into the groove and held firmly there. The advantages claimed for this method are, that the bristles are more uniformly spread over the surface; that a considerable saving is made in the labor of manufacturing; and that a round brush presents a bristle surface on all sides, and will wear longer



Fig. 2—A COMMON CLOTHES-BRUSH.

than one having only a single flat surface. We are not certain that this mode will take precedence over the old one for common clothes-brushes, though the manufacturers claim that they can and do furnish a better round brush at the price of the flat; but for cylindrical brushes, required in machinery, in carpet-sweepers, etc., it appears to be a valuable improvement.

#### Escaping from a House on Fire.

The Western Female Seminary, at Oxford, Ohio, was entirely consumed on the night of Jan. 13th. The fire caught under the roof, and made such headway before being discovered, that only a part of the furniture and clothing in the upper rooms could be saved. Our special object in alluding to this matter, is to speak of the self-possession of one of the young ladies, which doubtless saved her life. The example of the benefit of self-

possession and not allowing fear to run away with the judgment, and also the means of escape adopted, will, we hope, not be forgotten by those who may chance to be placed in similar circumstances. The lady, whose room was in the fifth story, had returned to it to secure some articles still remaining. While in the room, the flames and smoke burst into the hall and cut off her retreat. She immediately closed the door tightly, and then tore up the bedding and made a rope of it. Shoving the bedstead against the window, she tied one end of the rope fast to the rail, and the other end around her body, and let herself down. But the rope proved too short, as it reached only down to the second story and left her suspended in the air twenty feet from the ground. Holding firmly on with one hand, with the other she unwound the portion around her body, and this let her down so far that she dropped to the ground without injury. Springing up as if nothing had happened, she ran to her Preceptress and asked what further she could do to help others. This is one of the most striking instances of cool, intrepid courage we have heard of. How much better than to have run to the window and called for help which probably could not have been afforded, or, in despair, to have flung herself to the ground to meet almost certain death.

#### Combined Lamp and Match Box.

Annexed we present an illustration of an arrangement invented by Thomas Shanks, of Maryland, which is designed especially as a convenience for those who have occasion to light a lamp during the night. The base of the lamp *A*, is made hollow to admit the drawer *B*, in which, matches or tapers, or both, may be kept so as to be always at hand. The drawer is pulled in and held there by a concealed spring. The knob *C* is on the end of a rod which is connected with the catch *D*, so that on pulling out the drawer and turning the knob part way round, the catch is turned up and holds the drawer out until the knob is turned back. In front of the box is a piece of sand paper for rubbing the matches upon. The two compartments in the drawer are designed, one for matches, and the other for burnt sticks.



#### Freezing out Cockroaches.

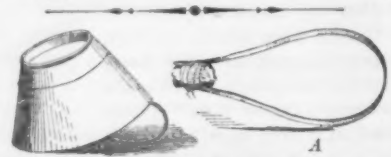
To the Editor of the American Agriculturist

I went with my family into the country, to spend a portion of the holidays, leaving my city house closed during what Merriam would call a "cold term." Upon reopening it again, the first discovery made, was the large number of apparently dead cockroaches, which traps, powders, and poisons, had failed to exterminate. Looking into the cracks and crannies which they had formerly infested, scarcely a roach was found, they having stiffened and fallen upon the floors and shelves. I found, however, on warming the house, that a few of them began to show signs of life, so I immediately brushed them into the dust-pan and made a burnt, or peace offering of them. I now have scarcely a live roach left, where

before were hundreds, and I throw out the hint to your city readers, some of whom I have reason to know would take a trip to the country, even in the dead of winter, if by so doing they could rid their premises of these pests of the

Brooklyn, Feb. 5.

HOUSEKEEPER.



#### An Effective Mouse and Rat Trap, which Costs Nothing.

One of the simplest, and most effective traps we have ever seen, has just been presented to us by an office associate. Others may have seen it before; we have not. It consists of a piece of basket or chair bottom splint, bent into hoop form, as shown at *A* in the engraving. Where the two ends are brought together, a piece of cheese is tied in for bait. The hoop is then placed under the edge of a bowl or other vessel, inverted upon a piece of board, as seen in the sketch. A slight nibbling at the bait lets the bowl down, and catches the intruder, who may then be drowned by dipping the bowl into water, or sliding him into it. The apparatus is so simple as not to be feared by mice, or the notoriously shy rats. For the latter animals, a heavy tin pail, or milk pan, or large earthen dish may be used. A weight may be put on, if necessary. For mice a common bowl is large enough. Half a dozen bowls may be rigged out and set in a very few minutes.

#### A Home-made Shawl Pin.

A correspondent sends to the *Agriculturist* a description of a shawl pin, which is so easily and cheaply made, that we publish it for the benefit of those needing such an article, and who can not readily purchase one of more finished manufacture. Take a piece of bright brass, steel, or iron wire, about eight inches long; sharpen one end



with a file or on a grindstone, smoothing it on a whetstone. Three inches from the sharp end, wind it twice or three times about a round stick, making a coil as shown at *A*. At about three inches from *A*, make a single coil *B*; give the remaining end a turn down, then up, to make the hook *C*. Then twist it out towards *D*, so as to form a guard over the sharp point, cut it off the right length, and the pin is completed in less time than we have taken to describe it.

#### Hints on Cooking, etc.

[The following nine good recipes are taken by permission from a copy-righted pamphlet issued by Mr. Crozer, of Mercer Co., N. J., who was formerly largely engaged in the baking business, preparing cooking extracts, etc. We doubt not our readers will find them valuable.—E.D.]

**ALMOND CAKE.**—Mix together until very light, 1 lb. of sugar, and  $\frac{1}{2}$  lb. of butter; then add gradually 1 pint of white of eggs, well beaten up; mix until light, and flavor with extract of Bitter Almond; then add 1  $\frac{1}{2}$  lbs. of flour; mix it in carefully until smooth. Put in a greased and papered pan; bake in a moderately hot oven. If baked in smaller cakes they need a hotter oven.

**GINGER CAKE.**—Of the very best kind.—Gradually mix 1 quart of the best molasses into 6 ounces

of butter; flavor with extract of Ginger; add a scant  $\frac{1}{2}$  pint of water or milk in which is dissolved 1 ounce of saleratus, then add enough flour to enable it to be rolled out. Cut in cakes, and bake in a hot oven. Too much flour will spoil it. By using only a little more than half the flour, an excellent soft ginger cake can be made.

**GINGER NUTS.**—To  $\frac{1}{2}$  of a pound of butter mix 1 quart best molasses; add 2 eggs; flavor with extract of Ginger, and add  $1\frac{1}{2}$  ounces of saleratus dissolved in  $\frac{1}{2}$  pint of water or milk; then add about  $3\frac{1}{2}$  pounds of flour. After mixing, make them up into small balls; put on greased pans; flat them slightly, and bake in a moderate heat.

**SPICE NUTS.**—Mix together 1 quart of the best molasses and  $\frac{1}{2}$  a pound of butter or lard; flavor with extract of Clove—extract of Ginger will improve it; then add  $\frac{1}{2}$  a pint of water in which is dissolved  $1\frac{1}{2}$  ounces of saleratus; then add about  $3\frac{1}{2}$  pounds of flour. Make the dough up in small round balls; put on pans, flat them slightly, and bake them in a moderate heat.

**DELICATE CAKE.**—Mix  $1\frac{1}{2}$  pounds of fine white sugar, and 1 pound of good solid butter, until light, then beat up to a stiff froth 1 pint of white of eggs, and add few at a time, and mix carefully; flavor with extract of Vanilla, and add  $1\frac{1}{2}$  pounds of sifted flour, and mix it through very carefully. If made in small cakes, bake in a hot oven, or stove. If made in one cake, a cooler oven is required.

**JACKSON SNAPS.**—Mix together  $\frac{1}{2}$  a pound of butter or lard, and  $\frac{1}{2}$  pound of brown sugar; then add gradually 1 pint best molasses; flavor with extract of Pimento; a little extract of Clove or Ginger will improve it; add  $\frac{1}{2}$  of a pint of water or milk, and enough flour to make it middling stiff. Make the dough up in small lumps, put them on greased pans, and press them very flat, and bake in a moderately hot oven or stove.

**DOMESTIC CAKE.**—Mix together 8 ounces of sugar and 6 ounces of butter; add 2 eggs; mix, and flavor with extract of Cinnamon; add  $\frac{1}{2}$  of a gill of water, in which is dissolved  $\frac{1}{2}$  a teaspoonful of saleratus, then sufficient flour to have it rolled out and cut in cakes. Pan close, and bake in a hot oven or stove. Too much flour will spoil either of these recipes.

**TEA CAKE.**—Mix together 1 pound of sugar and  $\frac{1}{2}$  a pound of butter; add 2 eggs; mix, and flavor with extract of Celery, or other articles to suit the taste, add  $\frac{1}{2}$  a pint of milk in which is dissolved a teaspoonful of saleratus; then add flour until stiff enough to roll out. Cut in small cakes; put on greased pans, a little distance apart, and bake in a very hot oven or stove. Be careful not to get too much flour.

**SPANISH BISCUIT.**—Mix  $\frac{1}{2}$  a pound of sugar and 6 ounces of butter together, add 3 eggs, and when well beaten add  $\frac{1}{2}$  of a pint of milk or water in which is dissolved  $\frac{1}{2}$  of an ounce of saleratus; work this well in, and flavor with extract of Lemon, then add 14 ounces of flour; work it in well, then drop the dough on greased pans, in small lumps, a little distance apart, flat them slightly, and bake in an oven hot enough for bread.

**LEMON PIE.**—The best we have tasted, made by Mrs. H. M. B., Kings Co., N. Y., after the following recipe, and contributed by her to the *Agriculturist*. Take two lemons, four eggs, two spoonfuls melted butter, eight spoonfuls white sugar. Squeeze the juice of all the lemons, and grate the rind of one. Stir together the yolks, sugar, butter, juice and rind. Cover a plate with pastry, pour the mixture in, and bake

till the pastry is done. Then beat the whites of the eggs to a stiff froth, stir into it four spoonfuls of sugar, put it on the pie, and bake a delicate brown. This quantity makes two common sized pies.

**DELICIOUS CORN BREAD.**—By the same. Boil a tea-cup of rice. While scalding hot mix it with a little less than a quart of corn meal, four eggs well beaten, a tablespoonful of lard, a teaspoonful of soda, a little salt, and enough sour milk to make a thin batter. Bake quick.

**LABEL THE POISONS.**—If arsenic, strychnine, or other poisons are kept in the house, let the word POISON, be distinctly printed upon the vial (paper packages are not safe receptacles for such articles). Keep them locked up, and the key in your own pocket, and burn all that you have no use for. These precautions might have saved thousands of lives.

### Familiar Talks by the Doctor.....III.

MR. EDITOR:—As the Spring approaches, and there is more and more to be done by the farmer in his duty of obtaining from mother earth that food on which we all depend, it is not inappropriate to say what more I have to add concerning *overwork*. Last month it was its effects upon the man himself of which I wrote, now it is of its effects on the wife and children. It is with no disrespect to any one that I have before compared the farmer's treatment of himself, or perhaps I might even say his neglect of himself, with the tender care which he takes of his favorite horse. With as little disrespect, I ask, would you think of requiring a four year old colt to do as much as a horse of eight years? If he is ever so free a worker, would you *allow* it? Is it not often wise to let the colt grow older before he is permitted to do any work at all, breaking being the utmost discipline and labor to which he is subjected? Why should you treat your boys and girls with less care than you do your colts?

The fact is, the human animal is longer in maturing than other animals, and we get tired of waiting for it to arrive at adult years—the boys and girls themselves get tired of waiting, and, in this country especially, are anxious to become men and women before they have attained the necessary age—they strive to undertake the full work of men and women, and are allowed to do so; fortunate if they do not suffer for it. I have only to shut my eyes and I can see whole troops of them that I have known. I seem now to see Flora Quick, with whose appearance I was so much struck when I first met her. Slender and graceful as a young willow, her large blue eyes sparkling with life and animation, her flaxen curls falling on her shoulders, her lips bright with the red blood that rushed through her veins and peeped through the delicate skin of her cheeks—ah! she was beautiful. Was it strange I watched her as she moved about, now looking after the churning, now seeing that the dinner was cooking properly, now spreading the table, now running into the cool cellar for something that was needed, lifting the kettles round as if it was child's play, never sitting, never stopping! She was an only daughter, the pride of her father and mother, the idol of her brothers, the promised wife of as fine a young man as I ever saw. Once when I saw her thus at work, I said to her: Flora, are you always as busy as this? "Oh," she answered, "I do not call this being very busy. You ought to see us in haying time."

I suppose you get very tired by night?

"Yes, I am always glad to go to bed"—(she was a girl of too much good sense and real re-

finement to pucker up her mouth and call going to bed, *retiring*, as I have known some people do.)

At what time do you go to bed usually.

"About ten o'clock or soon after."

How early do you get up?

"At this time of year (it was May) at half past four." (Hum, thinks I to myself, six and a half hours sleep, too little by at least an hour and a half.)

Do you feel entirely rested in the morning?

"No, never, unless it is Monday mornings, but then after I get up, and get to work I am as lively as ever. But, Doctor, seems to me you are growing wonderfully inquisitive. You do not think you can get me to take your pills, do you?"

Oh no, but I had some curiosity to know how much you could do.

"Do!" said her mother who was standing near, "she is the smartest girl of the whole neighborhood. I have hard work to beat her, and yet to look at her you would not think it. I do not wonder John came here for a wife."

Thinks I to myself, neither do I, as I saw the beautiful blush that came to her face at her mother's last remark.

When I had a fitting opportunity, the daughter not being present, I turned to Mrs. Quick, who was in the room and said, I used to think you loved Flora, but find I was mistaken.

"Love her!" "mistaken!" what do you mean Doctor."

I am sorry, I say, that you do not love your daughter.

"Doctor, I do love her; I often fear too well."

Oh no you don't, Mrs. Q., for if you did, you never would allow her to overwork herself as she does, and it is my duty to tell you plainly that if you do not put a stop to it, she will soon be my patient, and soon—

"Why Doctor you are mistaken. She only does what she chooses without any urging, she likes to do it and she is perfectly well."

The decision rests with you, and I hope I am mistaken, but am sure I am not.

My warning was unheeded. In the Fall of that year I had a lovely patient in that house. In the Spring there was a funeral there, but no daughter afterwards. And all this of *overwork*. She was *ambitious*; she did more than her strength was equal to, she died.

So it is with the boys, though I do not think they are so apt to be overworked as the girls. They get more recreation as in fishing, and hunting, and nutting, and skating, while the girls are pretty constantly at home, sometimes, but too rarely going a berrying. Too seldom are they allowed for a day to stroll in the fresh air, or to lay aside any of their round of duties. Let them have their recreations, their amusements, their resting periods, and especially so, if it is necessary, as I admit it may sometimes be, to overwork them for a few days. Be more careful of them than of your horses, and be sure they will repay you abundantly in your old age.

The same thing holds true with regard to the wives. I need not recapitulate what I have said, and only add that they should be especially guarded against too much labor previous to the birth of each child. But I can not say the tenth part of what might be said on *this* subject, if more room could properly be devoted to it in the *Agriculturist*. I therefore only add that I beg your readers to use the same good sense in the physical education of their children that they do in the care of their working cattle. It will save much suffering from ill health on their part, and on the part of their parents, and add greatly to the amount of happiness.

P. H. E.





THE LUCKY BRANCH.—FROM A PAINTING BY P. LEVIN.  
(Engraved for the American Agriculturist.)

#### The Editor with his Young Readers.

[A private word with you, young friends, about your parents. They may not think it proper for us to be whispering to you about them, but if they don't read this page, why they will know nothing about our chat. Not long ago we heard a little boy complaining, that his father did not love children. He said, "he did not believe his father ever was a boy, for he never seemed to take any pleasure in boys' amusements." We have heard similar expressions from others, whose parents were compelled to work so hard that they were generally too weary, when not occupied, to enter freely into the feelings, sports, and amusements of their children. Perhaps you, without knowing it, have sometimes felt, as the boy referred to expressed himself. But this is a mistake. However your parents may appear to you now, it will be years, before you can fully know and appreciate how much they truly love you, and how much pleasure they really take in seeing you happy. Some people never express half of what they feel, and others express, on the wrong side, a great deal more than they feel. If you happen to hear your wearied, care-worn father or mother say that they don't want to hear your noise, or listen to your talk, you must not conclude that they have no real interest in the things which you enjoy. We do not believe there are any parents, and but very few other grown up people, in the world, who are not really pleased when they see children happy—no matter how morose or unfeeling they may appear to be. Let us give you

#### A TELLING ILLUSTRATION.

Not long since we chanced to know that an old subscriber complained of the engravings, and especially of the Boys' and Girls' department, in the *Agriculturist*. If you had seen that man's expression of countenance, as he spoke—his stiff, up-and-down demeanor, and his dignified bearing on all occasions, you would have thought him one who would be glad if no more children were ever born. We determined to test his heart, and so taking time when a little at leisure, we handed him a copy of the paper which he had not yet seen. He sat down with it, and we appeared to be attending to something else, but kept an eye on him. The first thing he did was, to look all through the paper, and carefully examine and even study the pictures. Then, before looking over a single other article, he turned to the boys' and girls' columns, and read them all through—stories, puzzles, and all. Then he read the headings to the other articles, and finally settled down upon those topics which he at first led us to believe he would have the whole paper filled up with. Once before, we tried a similar experiment upon another companion, and with precisely the same result. Now we are sure that these men, in their hearts, really love children, and take pleasure in the things that please them.

And so it is with all other grown up folks. They love to unbend, though their notions of dignity may keep them from appearing to do so. Some of the most dignified and learned of our subscribers, clergymen, professors in colleges, and legislators, have actually expressed to us their pleasure at the introduction of these boys' and girls' columns. Just watch your parents, and see if they do not read your special department. You will then cast away that feeling you may have harbored, that grown up persons have no interest in the things that please you. We know they have, they all have, and that you have more sympathy and love for you, than you have yet dreamed of. But, *One Hint Here.*

Our young friends must not by any means think that these columns of the paper are the only ones for them to read. They should read the whole of it; read about the trees, and plants, and flowers, and about the cattle, and the modes of culture too. Don't fail to read and study the articles about insects, commenced in this number—they will open a new field of instruction and delight

#### "THE LUCKY BRANCH."

The picture above, would be pretty, simply as a group of innocent, happy children. It was painted, however, in illustration of a custom prevalent in the hop-growing towns of England. As the English people are great beer-drinkers, hops are in demand, and large gardens or fields are devoted to their culture. The hop-gardens of the counties of Kent, Sussex, and Herefordshire, are the most extensive. In Kent County alone, about thirty thousand acres are devoted to this single crop! and as many more in the other two counties named. And many of these hop-gardens are almost as beautiful as the vineyards of Southern and Middle Europe. The hop-picking season is especially one of activity as well as mirth. At this time, it is customary for the pickers to select the best branch of hops each one can find, and whoever finds the largest and most beautiful one, carries it as a present to the proprietor. This is called the "Lucky Branch," and the finder expects and usually receives some nice present in return. Our picture represents a group of children going with their prize. The little fellow bears aloft the lucky branch, seated astride his brother's neck, with his arm around the sister's head. The satisfaction and the hope expressed in the countenances of this group, are happily brought out by the artist. It is a fine sketch for copying by those who are practicing with the pencil or brush.

#### WHAT DO YOU THINK OF YOURSELF?

Our first reading book, in school, was the old Webster's spelling-book—not "Webster's Elementary," but one a couple of generations older, for Cobb's spelling book came between the two. Almost the first line of reading we spelled out in that book was: "T-h-e w-i-c-k-e-d f-l-e-e-w-h-e-n n-o m-a-n p-u-r-s-u-e-t-h." That was a pretty

hard lesson for a little boy to read, and a still harder one to know the meaning of; but in those days, teachers and others had not learned, as now, that it is better for scholars to have lessons that they can understand. We well remember how puzzled we were to make out why a flea should be wicked, when no man pursued it. Yet after all, that hard sentence may have done us more good than an easier one, for it made us think a good deal, and thinking, you know, makes the mind grow strong, just as working makes the body strong. Well, we of course found out, afterwards, what our lesson meant, and how many times since have we seen proofs of the truth that the wicked flea, run away, are scared, when there is no real danger—their consciences, their own hearts, tell them that they have done wrong, and the feeling that they at least deserve to have somebody after them, makes them afraid; while the righteous are as bold as a lion—they feel that they have done nothing wrong, and have no cause to be otherwise than bold, manly, fearless, like the lion. Young friends, when you act so that you are not afraid of yourselves, you will have far less fear of others. When alone and tempted to do wrong, because you think no one will see you, stop and say, "I shall see myself, and I will not degrade myself in my own eyes." Yes, have as much respect for yourself, for your own opinion, as you have for that of others; do nothing which will lower you in your own estimation, and then you can walk forth confidently, and not shamefacedly, in the presence of others. Now promise

not to forget the subject of this lesson, not forget to stand well in your own regard, and we will tell you a story illustrating how a man's fears of Satan, or his feeling that the old fellow ought to pay him a visit, made him act, or

#### HOW A MAN GOT SCARED.

Formerly, when wood, instead of coal, was burned in our large cities, the narrow chimneys rapidly filled up with soot, and it was necessary to have them cleaned out oftener than now. There were a good many persons, called "chimney sweeps," who made it their constant business to clean out chimneys, and as the sweeper was often obliged to go down into small flues, little boys were engaged for this purpose. In a block of buildings, where the houses were all alike, one of the occupants engaged a man with his boy to clean out his chimneys. The boy was let down from the top by a rope, but as it chanced, he went into the wrong chimney, and unexpectedly to himself and the occupant, he landed, all blackened and begrimed with soot, in the office of a man who was just planning out a wrong business transaction. The man started up in amazement, and verily believed a little *imp* had arrived. The boy was equally frightened, and cried out, "My father's coming in a minute." The man thought that if the "old fellow" himself was coming, it was time to make tracks, and he rushed from the room in terrible fright, while the boy scrambled up the chimney again. One bad business scheme was stopped, and we hope, no others were ever afterwards undertaken by this man.

#### A BOY SEEING A STRANGE SIGHT.

A pretty good story is told of a boy who chanced to be born in a backwoods cabin, (he was none the worse for that,) where a looking-glass had not yet been added to the furniture, and none of the younger inmates had been favored with a daguerreotype sight of their own "looks." The boy referred to, like many other boys, was very careless in his dress, and no advice of his mother, or shaming of his father was successful in keeping him in respectable trim. His face was seldom washed, and his hair never combed; and as to his hands, you could never tell the natural color, because you could never see down to the skin. It happened that this boy was sent on an errand to a neighboring farmer, who had recently got a new mirror. While there, he chanced to get square before the glass, and turning round, he obtained the first full view of himself he had ever had. What he thought of his personal appearance, you can imagine from the result. Without stopping to take a second look, he bolted through the door, ran home in breathless haste, rushed to his father, and exclaimed, that at the house where he had been "they kept a little devil—he had seen him in a cage in the wall." When your hair is uncombed, your hands and face unwashed, or you are otherwise slovenly, just remember that *cage in the wall*!

## ABOUT SOME COMMON ERRORS IN SPEAKING.

"Some older people may find it useful to look over the following from our contributor ANNA HORN:

"What a fuss some people make when they are sick." A child exclaimed to me, and immediately added, "why don't you say *persons*? you always do." She remembered that she had been told that *people* means a nation, and should not be used, as it so often is, where *persons* only are referred to. . . . *Illy* is frequently used instead of *ill*. There is no such word as *illy*. *Persons* may be *ill* prepared for any occasion, but they never can be *illy* prepared for anything. . . . *Tasty* is a vulgarism. *Tasteful* is the proper word. . . . We often hear certain kinds of food spoken of as *healthy* or *unhealthy* for us. Vegetables may be healthy or unhealthy in themselves, just as we may be ill or well, but for us they are *healthful* or *unhealthful*. . . . *Sust'n* is sometimes used for *something*. . . . It is not uncommon to hear *his'n*, *her'n*, *our'n*, *your'n*, *their'n*, instead of *his*, *hers*, *ours*, *yours*, *theirs*. These words are evidently contractions of *his own*, *her own*, *our own*, etc., but they are never proper. . . . "I must go up stairs and be a getting ready for meeting." Omit the *a* and "be getting ready." "I must be a doing something," is a kindred wrong expression. . . . "Just as line as not," should be "just as *lief* as not." . . . Say, "So far as I know," and not "Fur's I know." . . . "I should like to do it," not "I should *love* to do it." We *love* that which has life. We may *love* a cow, but we must *like* beef. We can not *love* apples and pears, puddings and meats, but we may *like* them. We must not *git* them for our friends although it may be very kind to get them. . . . Do not talk about reading the *adver-tise* ments in a newspaper—place the accent on *ver*, and say *ad-ver-tise* ments. . . . Tell not your friends that your Charley is a *mis-chiev* ous boy, but if you wish to mention the fact, you can say that he is *mis-chiev* ous. If he should try to run away, make no attempt to *catch* him. Simply endeavor to *catch* him. Neither should you tell him interesting stories; those that are interesting will please him quite as well. If he tells you he would *drather* go to see his aunt, you can tell him you would *rather* he should stay at home. If he is dissatisfied and cries, do not say to him "What *maksh* you cry?" Indeed, never change the sound of *s* into *sh* before the letter *y*, as is so frequently done. "He is a *nish* young man." "Ask you please." "We *passh* your house," etc. . . . "You may have the two *first*, or the two *last*," is often heard, yet there can be but one first and one last. It should be the *first two* and the *last two*. . . . Do not say "have you *lit* the lamp?" but, "have you *lighted* the lamp?" . . . Elder and eldest are applied to persons, older and oldest to things. . . . *Less* refers to quantity—*few* to numbers. "No *less* than a hundred persons were at the party," should be "No *fewer* than," etc. . . . Remember that you are *taught* by others, and *learn* yourself. You may *teach* a child his lessons, but you can not *learn* them to him. He *learns* by his own efforts.

ANSWERS TO PROBLEMS.—Our young friends, and some of the old ones too, have had considerable fun over the "Puzzling Pictures" of last month (No. 4), judging from the number of answers sent, and the odd remarks made.



D. represents a boy in danger of drowning because he has jumped over board. James S. M. Bradley wrote that the boy "is in a *spring*" which was an ingenious answer and perhaps as good as the one given by the maker of the puzzle. Wm. P. Wilson and H. A. Cone, think he is sinking, which certainly puts him in greater danger.

E. reminds us of a man just getting from his horse, because he is going to *a-light*. You see the insect in the picture is doing the same thing.

In F we see the cat's up, very plainly, and *catsup* is generally *hked* as a table sauce. Andrew Hageman wrote "the cat's-up, looking rather *sauzy* too," which we think a *spicy* suggestion.

Correct answers to the above were received from S. Groosh, M. Bigger, Jefferson Brown, Thomas Montford, S. A. Camp, Andrew Hageman, R. Riley, H. A. Cone, (thank you for sending the labyrinth. We have, however, enough of that kind of puzzles on hand), Victoria B. Rogers, Otis Wood, Emory Mills (we'll think about the music), George F. Sly, Franklin Adams, J. S. Coles, Geo.

L. Emery, Henry W. Kempton, Nathan H. Darby, Aunt Sue (sends her love to Willie B., and all the other B's.), W. H. B., Frederic Anderson, Thos. H. Phelps, W. J. Lane, E. R. Font, W. Virscher.

No. 5. A man contracted to purchase the apples from a tree, agreeing to give \$10 for them if there were 10 bushels, and \$18 if there were 20 bushels. 18 bushels were gathered. How much ought he in justice to pay?

The difficulty here is, to decide whether a reduction should be made in the price of each bushel of the whole eighteen, or only in the eight additional bushels. A number have answered he should pay \$10 for the first 10 bushels, and 90c. per bushel for the remainder, or \$17.20 for the whole. We think not. The purchaser values the apples according to the supply. If he has 20 bushels instead of 10, the increased quantity reduces the value of the whole. 10 bushels were worth \$10, or \$1 per bushel, but 20 bushels would be worth only 90 cents per bushel: Now 10 bushels added, reduce the price 10 cents per bushel, or each bushel added reduces the price 1 cent per bushel. Then 8 bushels added, reduce the price of the whole 8 cents per bushel, and 18 bushels at 92 cents (the reduced price) amount to \$16.56. This answer was obtained by Thos. Montford, S. A. Camp, George F. Sly, Geo. L. Emery, J. S. Coles, E. R. Font, W. Virscher.

No. 6. Rebus.—'L B B B B L E D H I S C C C C  
an D 3 X D—60 minutes T T T T. D D D D  
throw

Interpretation.—Colonel Forbes led his forces over the ford, and threatened to overthrow our forts. Read aright by Mrs. J. Shallow, Otis Wood, Fred. Andrews. Additional answers to Problems in Jan. To No. 1.—Arthur Cunningham, Jacob Montgomery, Geo. Elcock, Willard Follett, J. S. Coles, Subscriber at Quakertown, A. H., Otis Wood (we find your mistake to be giving 50 lbs. to B.; that was A's portion. Our figures were right).

## NEW PROBLEMS.

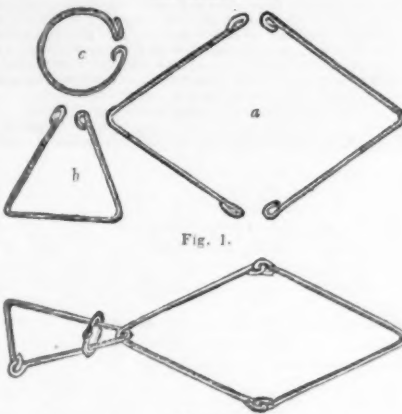


Fig. 1.

Fig. 2.

No. 7. Wire puzzle. Some ingenious person in this city has lately invented a wire puzzle which we like so well, we have engraved it, and give a description of it, so that the *Agriculturist* boys can make one for themselves.

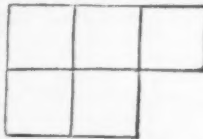
Bend two pieces of wire, each say four inches long, to the form shown at a, Fig. 1, the looped ends being spread an inch and a half apart. The piece *b*, has sides 2 1/2 inch long, and the circular piece *c*, is three fourths of an inch in diameter. Loops or hooks are made on the ends, to join the pieces as shown in Fig. 2. The loops in a, Fig. 1, should be large enough to make a loose joint, or hinge when they are united, so that the two parts may be doubled together easily. Join the loops to complete the ring, and also those of piece *b*, slip the ring over the end of *b*; then pass one piece of a, through the corner of *b*, below the ring to bring them in the position shown in Fig. 2; unite the loops to make the large jointed piece, and the puzzle is completed.

Now try to remove the ring without unjointing any piece, and without springing the looped ends of the large piece together. It can be taken off and put on easily, when you know how.

We shall not call for answers to this puzzle. Make it and keep it for your own amusement and that of your friends.

## No. 8. ECONOMICAL FENCING.

Mr. Jacob W. Moore, furnishes the following, which may be new to some. A farmer has five square fields fenced as shown in the Fig. He wishes to remove three fences and leave three fields all completely fenced. Which ones shall he remove?



No. 9. What four United States coins amount to 51 cents.

ERRORS OF THE TYPES.—Amusing sentences sometimes occur through the omission or misplacing of a letter. One of the best and most truthful we have seen, was the omission of *an* in the last word of an advertisement of a quack medicine, which made it read thus: "To be efficacious it must be applied *internally* and *eternally*."

Everybody likes polite children. Worthy persons will pay attention to such, speak well of their good manners, and entertain a high opinion of their parents. Children, make note of this. Yes, and it would be as well if not a few parents would take a note of it likewise.

## Premiums Still Open.

(The premiums below are offered for subscribers to Volume XIX, whenever received. Those having partial lists made up can complete them, and new lists can still be formed.)

N. B. These premiums are not offered for competition, but as direct pay for time, labor, and expense incurred by canvassers. The premiums are absolute in each case, and not dependent upon what some unknown person is doing. Every canvasser knows just what he or she is working for. Every article is the best of its kind, and will be selected with especial care by the Publisher.

REMARKS.—1. The premiums below, except No. IV, are all for NEW SUBSCRIBERS ONLY, as we can only afford to pay premiums for once on the same subscriber. But in making up any premium lists, two renewals of old subscriptions, collected and forwarded by the canvasser, may always be counted as one new name. Names need not all be at the same Post Office.

2. Of course but one premium can be paid on the same name. The canvasser will choose his own premium. Any one striking for a higher premium, and failing to get names enough, can still fall back upon a lower one.

3. Every person collecting names for premiums can send in the names with the money as fast as received, so that the subscribers may begin to receive their papers; but if designed for premiums, a double list of each lot of names should be sent, one of them marked at the top, "For premiums," and with the name of the sender.

4. Any premium will be paid as soon as the list for it is completed, if we have the duplicate lists to refer to at once. (To avoid confusion, we omit the numbers of premiums previously offered, but now withdrawn.)

Premium III.—Every person sending in a club of 10 new subscribers at 80 cents each, may order a free copy of either Vol. XVI, or Vol. XVII, or Vol. XVIII, which will be sent in numbers, post-paid.

Premium IV.—Every person sending 15 new or old subscribers at 80 cents each, will be entitled to 16 copies (that is one extra copy), for the coming year.

Premium V.—Every person sending 25 new subscribers at 80 cents each, will be entitled to the three Volumes, XVI, XVII, and XVIII, sent in numbers post-paid.

Premium VI.—Every person sending 30 new subscribers at 80 cents each, will be entitled to a silver-lined pocket microscope, with Coddington lens. Value \$4. Sent by mail securely packed and post-paid. (See Premium 18.)

Premium VII.—Every person sending 45 new subscribers at 80 cents each, will be entitled to a copy of the late new *Pictorial Edition of Webster's Unabridged Dictionary*. Price \$6.50. It weighs 84 lbs., and can go by express, or be sent by mail at 1 cent per ounce within 3000 miles, or 2 cents per ounce over 3000 miles. (Expense after leaving the city to be paid by recipient.)

Premium IX.—Every person sending 144 new subscribers at 80 cents each, (or 10 at \$1 each), will be presented with one of Wheeler & Wilson's best \$50 Sewing Machines, new from the factory, and of the very best make. There is no better family machine than this made, as we have proved by nearly two years' use in our own family. We want no better. The machines will be selected at the manufactory, be well boxed, and forwarded without expense to the recipient, except for freight charges after leaving the city. Full instructions for setting up and using go with each machine.

Premium XII.—To every person sending 120 new subscribers at 80 cents each, (or 95 at \$1 each), we will present Appleton's *New American Encyclopedia*, now in course of publication, consisting of fifteen large volumes of 770 pages each. This is a magnificent work, forming a whole library embracing every type of human knowledge. Eight volumes are now ready, and the remaining seven will be furnished as fast as issued. Publisher's price \$45.

Premium XIII.—To every person sending 260 new subscribers at 80 cents each, (or 330 at the lowest club price (80 cts. each), we will present one of Allen's Mowing Machines, with sundry improvements now being added. This is one of the best we have seen in operation. Price \$115. Other kinds of Machines of the same price, will be substituted, when specially desired, if satisfactory arrangements can be made with the manufacturers.

Premium XIV.—To every person sending 65 new subscribers at 80 cents each, we will present one of the best Eagle Plows (2-horse). Price \$11. This we believe is the best general farm plow in use.

Premium XV.—To every person sending 55 new subscribers at 80 cents each, we will present the best Subsoil Plow (two-horse), price \$8; or one of the best Horse-Hoes, price \$8; or one of the best Straw and Hay Cutters, price \$5. These are all first quality, well made, and useful implements.

Premium XVI.—To every person sending 48 new subscribers at 80 cents each, we will present one of the best Steel-tooth Cultivators. Price \$7.

Premium XVII.—To every person sending 45 subscribers at 80 cents each, we will present either the Dictionary, (premium 6), or one of the best Hand Corn Shellers. Price \$6.50.

Premium XVIII.—To every person sending 30 subscribers at 80 cents each, we will present either the microscope, (premium 3), or a Double mold-board (ridging) Plow. Price \$3.50.

Premium XIX.—Books. Whenever desired, instead of other premiums, the publisher will pay premiums in



books as follows: Every person making up a club of 20 or more new subscribers, may select any Agricultural or Horticultural Books from A. O. Moore's Catalogue, (which is advertised on page 316 October Agriculturist) to the amount of 10 cents for every subscriber, sent in at 80 cents each. Persons making up a club for any of the premiums, and getting some names over the required amount, will be entitled to books for the surplus names. Thus, a person getting 55 subscribers can take for 45 names premium VII. or XVII, and also \$1 worth of books for the extra 10 names; and so in other cases.

### Seeds for Free Distribution in 1860.

Every subscriber to the present volume is invited to select four or five parcels of seed from the list below. The seeds can be called for at the office, or sent by express when, for large clubs, or they will be put up and forwarded by mail if post paid letter envelopes are provided.

If, to go by mail, the applicant will (of course) furnish prepaid envelopes, of ordinary size, which should be prepared as in the engraving here given—that is: Put the figures corresponding to the Catalogue plainly on the upper left hand of the envelope, and put all the postage stamps upon the right side of the envelope—one above the other, when two or more are needed, as shown in this pattern. This will prevent the seeds being crushed in the stamping process, in the Post-Office. One ordinary envelope will generally hold the amount of seed-packages carried by two or three stamps. The amount of stamps can be calculated from the Catalogue. Single 1-cent stamps on letters are of no value, unless there be even three of them, as letter postage is rated by the half ounce.

N. B. For the Pacific coast, 10-cent stamps must be used where 3-cent stamps are named in the list. Letters to Canada need not necessarily be prepaid there. (If to be prepaid send coins, and not Canada Stamps, as these are not received at our P. O.)

### LIST OF SEEDS.

[For Descriptive Notes upon these Seeds see pages 3 and 4 of January number.]

#### Field Seeds.

- 2—Improved King Philip Corn—Single, double, or triple packages, as may be desired, requiring one, two, or three 3-cent stamps.
- 3—Stowell's Sweet Corn—Same packages as No. 2.
- 94—Crystal Flint or Hominy Corn—Same as No. 2.
- 6—Ashcroft's Swedish Turnip—Half of 3-cent stamp.
- 7—River's Swedish Stubble Turnip—do. do.
- 70—Watte's London purple-top Swede Turnip—do.
- 98—Long Red Mangold Wurzel—One 3-cent stamp.
- 101—Improved Long Orange Cabot—of a 3-cent stamp.

#### Vegetable or Garden Seeds.

- 8—Daniel O'Rourke Pea—Packages same as No. 2.
- 9—Champion of England Pea—One 3-cent stamp.
- 99—Prince Albert Pea—do. do.
- 57—Eugenie Pea—do. do.
- 58—Napoleon Pea—do. do.
- 12—Green Kohl Rabi—One-third of a 3-cent stamp.
- 13—Enfield Market Cabbage—do. do.
- 15—Mammoth Cabbage Lettuce—do. do.
- 100—Early Purple Cape Broccoli—do. do.
- 21—Winter Cherry—do. do.
- 95—Hubbard Squash—do. do.
- 108—Mammoth Pumpkin—do. do.
- 109—Mammoth Red Tomato—do. do.
- 12—Imported Brussels Sprouts—do. do.
- 16—Musk Melon—do. do.
- 17—Water Melon—do. do.
- 73—Sage—do. do.
- 104—Thyme—do. do.
- 105—Chili Red Pepper—do. do.
- 106—Sweet Marjoram—do. do.
- 17—Red Strap-Leaf Turnip—One-half of a 3-cent stamp.
- 74—Solid White Celery—do. do.
- 75—Green Curled Endive—do. do.
- 55—White Globe Onion—do. do.
- 71—Long White French Turnip—One 3-cent stamp.
- 107—Giant Asparagus—do. do.

#### Flower, Fruit, and Ornamental Seeds.

- 89—Cotton Plant (2 kinds)—One 3-cent stamp.
- 90—Norway Spruce Seed—One-half of a 3-cent stamp.
- 91—Arbor Vite Seed—do. do.
- 111—Castor Oil Bean—do. do.
- 110—New-Rochelle Blackberry—of a 3-cent stamp.
- On an average about five of the following 40 varieties will go under a 3-cent stamp
- 23—Mignonette.
- 25—Mixed Nasturtiums.
- 27—Extra Cockcomb.
- 29—Double Balsams, mixed.
- 30—Tassel Flower.
- 31—Chinese Pink.
- 32—Portulaca, mixed.
- 33—Cypress Vine.
- 34—China Asters, mixed.
- 35—German Asters, mixed.
- 38—Sweet William.
- 40—Escholtzia Californica.
- 42—Foxglove.
- 47—Morning Glory, mixed.
- 49—Candytuft.
- 50—Schizanthus.
- 51—Phlox Drummondii.
- 78—Ageratum Mexicanum.
- 80—Yellow Hawkweed.
- 83—Snap Dragon.
- 84—African Marigold.
- 85—Gaillardia, mixed.
- 86—Euphorbia, mixed.
- 87—Coropsis.
- 113—Double Sun Flower.
- 114—Mixed Petunia.
- 115—Mix. Dbl. Hollyhock.
- 116—Mourning Bride.
- 117—Mix. Dbl. Wallflower.
- 118—Bee Larkspur.
- 119—M'd Chrysanthemum.
- 121—Trumpet Creeper.
- 122—Mt. Canterbury Bells.
- 123—Gilia nivalis.
- 124—Whitlavia.
- 126—Centranthus.

### Market Review, Weather Notes, etc.

AMERICAN AGRICULTURIST OFFICE, NEW YORK, Saturday Evening, Feb. 18, 1860.  
The market for most kinds of Breadstuffs has been unsettled during the past month. The receipts of Flour have been less extensive than those reported in our previous Review. At one time, holders manifested much firmness, encouraged by the prevalence of a fair home demand, and a moderate export inquiry. Within a week or ten days, this firmness has disappeared, and has been followed by an eagerness to sell, which has depressed prices, especially of low and medium brands, which are most abundant and in least request. During the past few days the demand for such brands has been limited, and prices of such have favored buyers. The better grades have been more sought after, and have been quoted firm. Wheat has been less active. Prices, recently, have been declining. Desirable lots are not being freely offered, as holders are anticipating an improvement in the market for such. The demand has been mainly from millers and shippers. Corn has arrived in heavier quantities, and having been only moderately sought after, it has materially decreased in value. The bulk of the receipts are from the South. The market has been almost bare of Mixed Western for some time past. Rye has been in limited request, at reduced rates. More activity has been discernible in Barley, which closes firmly. Included in the sales, have been several lots taken for Philadelphia and Baltimore. Oats have attracted more attention, and though prices declined early in the month, they now tend upward. Cotton has been less sought after, yet prices close higher. Hay has been more freely offered and has fallen off in price. Hemp and Hops have been in slack demand, and Hops are cheaper. Seeds have been in request, at buoyant prices. Rice has been actively inquired for, and has advanced. Provisions have been briskly dealt in. Hog products close higher. A fair business has been reported in Tobacco, which is steady. Wool has been very quiet, and prices have favored purchasers. The transactions in most other kinds of Produce have been restricted.

#### CURRENT WHOLESALE PRICES.

	Jan. 19.	Feb. 18.
Flour—Super to Extra State	\$5.25 @ 5.45	\$5.00 @ 5.35
Common Western	5.20 @ 5.35	5.00 @ 5.10
Extra Western	5.35 @ 5.50	5.30 @ 5.25
Fancy to Extra Genesee	5.50 @ 5.75	5.45 @ 5.75
Super to Extra Southern	5.60 @ 5.75	5.40 @ 5.75
Rye Flour—Fine and Super	3.60 @ 4.00	3.60 @ 4.40
CORN MEAL	3.85 @ 4.25	3.40 @ 4.15
WHEAT—Canada White	1.37½ @ 1.45	1.30 @ 1.45
Western White	1.37½ @ 1.50	1.30 @ 1.50
Southern White	1.40 @ 1.55	1.40 @ 1.55
All kinds of Red	1.19 @ 1.35	1.10 @ 1.30
CORN—Yellow	82½ @ 85	78 @ 79
White	82 @ 85	78 @ 79
Mixed	83 @ 84	78 @ 79
Oats—Western	45 @ 46	45 @ 46
State	40 @ 43	38 @ 41
Southern	40 @ 43	38 @ 41
RYE	88 @ 91	86 @ 87
BARLEY	75 @ 88	69 @ 86
White Beans	14 @ 20	14 @ 15
HAY, in bales, per 100 lbs.	1.12 @ 1.25	93½ @ 1.12½
COTTON—Middling, per lb.	11 @ 11½	11½ @ 11½
RYE, per 100 lbs.	3.50 @ 4.25	3.75 @ 4.50
Hops, crop of 1859 per lb.	12 @ 18	9 @ 18
All kinds of Red, per bush.	16.12 @ 18	17.38 @ 18
Prime, old, per bush.	10 @ 11.50	12.37 @ 12.50
BEEF—Repacked Meats	9.00 @ 9.62½	9.00 @ 10.00
Country mutton	5.00 @ 5.25	5.25 @ 5.50
Hogs, Dressed corn, per lb.	6½ @ 7½	8 @ 10
Lard, in blks, per lb.	19½ @ 19½	11 @ 11½
BUTTER—Western, per lb.	12 @ 17	11 @ 15
State, per lb.	15 @ 23	14 @ 22
CHEESE, per lb.	9 @ 11½	9½ @ 11½
Eggs—Fresh, per doz.	21 @ 21	16 @ 15
POULTRY—Fowls, per lb.	8 @ 12	10 @ 12
Geese, per lb.	8 @ 10	8 @ 10
Ducks, per lb.	11 @ 13	15 @ 17
Turkeys, per lb.	10 @ 22	11 @ 14
Venison, carcass, per lb.	8 @ 11	8 @ 11
FEATHERS, Live Geese per lb.	43 @ 52	42 @ 48
SEED—Clover, per lb.	8 @ 8½	8 @ 8½
Timothy, per bushel	2.12½ @ 2.75	3.50 @ 3.25
SUGAR, Brown, per lb.	6½ @ 8½	6½ @ 8½
MOLASSES, New-Orleans, per gal.	51 @ 62	40 @ 45
COFFEE, Rio, per lb.	10½ @ 19½	11½ @ 12½
TOBACCO—Kentucky, No. 10	4 @ 12½	4 @ 12½
Seed Leaf, per lb.	6 @ 25	6 @ 25
Wool—Domestic, per lb.	38 @ 62½	38 @ 60
Domestic, pulled, per lb.	28 @ 35	28 @ 35
Hemp—Undr'd Amer'n per ton	180 @ 150	120 @ 150
Dressed American, per ton	160 @ 200	160 @ 200
TALLOW, per lb.	10½ @ 10½	10½ @ 10½
OIL—Coke, per ton	27 @ 33	32 @ 36
APPLES—Dried, Per lb.	6 @ 8	6 @ 8
Dried Peaches—per lb. South's	10 @ 17	10 @ 15
POTATOES—Mercers, p. bl.	1.75 @ 2.15	1.87 @ 2.12
Peach Bloss, per bl.	1.25 @ 1.62	1.50 @ 1.75
Cabbages, per 100	3.00 @ 3.10	3.10 @ 3.00
Onions, Red, per bl.	1.62 @ 1.75	1.75 @ 1.80
White and Yellow, per bush.	1.75 @ 1.87	2.00 @ 2.50
Squashes, Marrow, p. bl.	1.75 @ 2.00	3.00 @ 3.25
Turnips, Rutabaga, per bl.	1.13 @ 1.25	1.12 @ 1.25
APPLES, Winter, per bl.	2.25 @ 3.50	2.75 @ 3.75
Cranberries, per bl.	12.00 @ 14.00	9.00 @ 13.00

#### TRANSACTIONS AT THE N. Y. MARKETS.

RECEIPTS.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
26 bus. day's trans.	81,463	24,732	3,084,87	7,466	61,137	78,370
23 bus. days last mon.	136,630	74,530	179,550	3,900	23,875	41,630
SALES.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
26 business days this mon.	241,468	135,000	371,000	45,600	273,500	23,000
23 business days last mon.	261,740	192,500	435,300	24,100	45,000	45,000
Breadstuffs exported from N. Y., from Jan. 1 to Feb. 15.						
	1859.					1860.
Wheat Flour, bbls.	55,876					73,841
Rye Flour, bbls.	12,477					215
Corn Meal, bbls.	16,749					16,739
Wheat, bush.	97,612					97,612
Corn, bush.	12,973					61,501

The following is a statement of the exports on the principal kinds of Breadstuffs from the Atlantic ports of the United States since Sept. 1, 1859:

#### To Great Britain and Ireland.

From	To Date.	Flour, bbls.	Wheat, bu.	Corn, bu.
New-York	Feb. 8, 1860	166,948	434,310	197,798
New-Orleans	Feb. 1, 1860	8	—	—
Philadelphia	Feb. 2, 1860	7,572	75,777	4,250
Baltimore	Feb. 1, 1860	—	—	—
Boston	Feb. 1, 1860	733	—	—
Other Ports	Jan. 27, 1860	15	—	—

Total from Sept. 1, 1859....	195,271	510,093	18,048
To about same period, 1858	85,731	412,425	319,852
To about same period, 1857	590,749	3,269,837	921,953
To about same period, 1856	619,173	6,605,795	2,705,415

#### To the Continent.

From	To Date.	Flour, bbls.	Wheat, bu.	Corn, bu.
New-York	Jan. 31, 1860	26,028	—	—
Other Ports	Latest dates.	3,110	—	—

N. Y. Live Stock Markets.—THE CATTLE MARKETS have been moderately supplied during the past month—only 14,558, or an average of 3,639 per week. Feb. 15, prices ranged: Premium beefs, 11c @ 12c; first quality or prime, 10c @ 10½c; medium, 8c @ 9c; ordinary and poor, 7c @ 8c. Average sales, 64c @ 6½c, being an advance of more than 1c. P. B. during the month. The supply was rather short at the last general market, prices advancing ½c @ 1c.

VEAL CALVES.—Receipts for four weeks past, 1,668—all of which have been sold at nearly uniform rates, viz.: 7c, 7½c, 8c, live weight, for the fattest; 5½c @ 6½c, for fair to good calves; and \$2 @ \$3 for "bobs"—those a week old, more or less.

SHEEP AND LAMBS.—These are now in short supply, and are worth 5½c @ 6c P. B., live weight, for fair to good sheep, and 6½c @ 7c, for very fat premium mutton. Receipts of live sheep for the last four weeks, 29,880, with large quantities of dressed mutton.

HOGS.—Receipts have been light, amounting to but 11,035 for the four weeks just ended, or an average of 2,759 per week, which is 10,586 less than weekly average for the five weeks preceding. Corn-fed hogs are now worth 6½c @ 7c, P. B., live weight; and still-fed, 6c @ 6½c.

The Weather for the month ending Feb. 17th, has been quite variable, with several snow storms, and some pretty cold days, the mercury touching zero in exposed localities. Very little rain has fallen during the month, and in the vicinity of this City there have been but few days of passable sleighing. Our DAILY NOTES, condensed, read thus: January 19, 20, 21, clear and mild weather, which continued with almost a Summer atmosphere until the 25th—26, cloudy, with a fall of 14 inches snow at night—27, clear and mild—28, cloudy—29, 30, 31, clear, warm, until the afternoon of 31st, when the weather suddenly changed to cold, with a fall of 3 inches snow at night—February 1, cloudy A. M., clear and very cold P. M.—2, coldest morning of the season, mercury at 0—3, still cold, (2°) but moderated during the day, light fall of snow at night—4, cloudy A. M., clear P. M., passable sleighing—5, cloudy—6, fog and rain—7, clear and warm—8, cloudy—9, clear and fine—10, clear, cool, with very high wind, doing much damage to buildings and shipping—11, cloudy, light snow at night—12, 13, 14, clear, moderate—15, cloudy A. M., raging snow storm P. M. and at night—16, cloudy—17, clear and cool.

A Hong Milkster.—J. Clapham, D. C., writes that he has a cow about nineteen years old that has given milk enough for a small family, without having a calf for six years and eight months. She gives at the present time from four to six quarts per day.

### Business Notices.

Sixty Cents a Line of Space.

### GROVER & BAKER'S CELEBRATED NOISELESS FAMILY SEWING MACHINES.

No. 495 Broadway, New-York; No. 18 Summer st., Boston; No. 730 Chestnut st., Philadelphia; No. 181 Baltimore st., Baltimore; No. 58 West Fourth st., Cincinnati. \* \* For our own family use we become fully satisfied that Grover & Baker's is the best, and we accordingly purchased it.—American Agriculturist.

SEND FOR A CIRCULAR.

### WHEELER & WILSON'S SEWING MACHINES.

"The best in use"—American Agriculturist.  
Office 505 Broadway, New-York.  
SEND FOR A CIRCULAR.

### SANFORD'S HEATERS, Portable or set in Brick,

Are pronounced by the most competent judges to be the best, giving the largest amount of heat, with a small quantity of fuel—owing to their being so constructed as to burn the gases and smoke, and with the largest radiating surface so arranged as to warm the air rapidly to a soft summer heat.

Eight sizes adapted to warming only one or two rooms, or a whole house, churches, academies, public halls, &c.

THEY ALWAYS PLEASE.

New Challenge Range now ready.

Send for testimonials (free) to  
SANFORD, TRUSLOW & CO., Manufacturers,  
239 Water-street, New-York.

## A Good Class of Advertisements.

We take pleasure in referring the reader to our advertising pages, which present a great variety of business announcements, of a character that, taken as a whole, has never been excelled in any journal in the country. From the excessively large number of advertisements of plants and seeds offered, we have endeavored to select for admission, only those from parties who are believed to have a business character to sustain. In saying this much for our advertising customers, it is proper to add that we cannot undertake to supervise their individual transactions. We mean by this, that while we aim not to be instrumental in even introducing sellers to buyers, where we do not believe the former aim to deal uprightly—to do what they advertise to do—yet in all business transactions, misunderstandings and differences of opinion will occasionally arise, especially where the parties do not come together to discuss details, and we cannot undertake to stand as arbitrator between the advertisers and their customers, as we have sometimes been asked to do. Suspicious, unknown parties, or those known to treat their customers unjustly, are excluded from the *Agriculturist*. After the exercise of reasonable care in admitting advertisements into the columns specially set apart for each man to announce his merchandise, in his own words, our duty is performed, and our responsibility ceases.

**Brower's Leather Preservative.**—The proprietor of this compound has submitted to us a full explanation of the composition, and mode of making, which being done, we are free to speak of it. It contains nothing injurious to leather, and judging both from its composition, and after a few months' trial of it, we can commend it as a good article for the bottoms and sides of boots and shoes. We do not approve of applying any waterproof material to the upper part of either boots or shoes, except when they are to be constantly in water. This portion should be left as open as possible, for the escape of perspiration which, if retained, keeps the feet cold, and rots the leather.

**Bogus Land Advertisements—Fertilizers.**—W. F. B. Franklin Co., Mass. We know little of the lands you inquire about. There are doubtless some chance plots which might be selected by a competent judge on the ground, but the good qualities of a majority of the magnificent farming lands advertised there, and at other points at the East, are on paper. Its all nonsense to talk of large tracts of good land near New-York, Philadelphia, etc., as having remained overlooked to this day. The fertilizer you inquire about we have not seen. There are few artificial compounds in market worth the buying, or even the freight and cartage.

**Flower Garden Books.**—Mrs. S. S. Luce, Trempealeau Co., Wis. Probably "Breck's Flower Garden," which sells by the publishers at \$1, is as good a work as you can find at moderate cost. We obtain and forward post-paid all such works, when desired, upon receipt of retail price. McMahon's work on Gardening (cost, ing \$2 at retail or by mail) is very complete and practical for all varieties of gardening, and is most desirable—though for flowers alone, especially for descriptions, Breck's is preferable.

**Delaware Grape—Correction.**—M. D. Conyngham, of Lancaster Co., Pa., writes to correct an error in his communication on page 19, (Jan. No.) He has ascertained that the vine owned by Mr. Steele in Chester Co., Pa., was not planted there by Mr. Prevost, but was obtained by Mr. Steele from Mr. Prevost, who resided in Frenchtown, N. J., as stated by Mr. Ott.

**Plans of Barns.**—D. D. Davison, Wood Co., Va. Plans and full descriptions of improved barns were given in the *Agriculturist*, for 1858, Vol. XVII, Sept. and Nov. Nos. Others will be given hereafter.

The average circulation of the *Agriculturist* for six months past has been somewhat over **Fifty Thousand Copies** per month. This is believed to be a larger circulation than that of any other Agricultural or Horticultural Journal in the world. Very large accessions of new subscribers are daily received.

## Advertisements.

Advertisements to be sure of insertion must be received at latest by the 15th of the preceding month.

TERMS—(invariably cash before insertion):

FOR THE ENGLISH EDITION ONLY.

Thirty-three and one third cents per line of space for each insertion, (three lines for \$1.)

One whole column (45 lines) or more—\$40 per column.

Business Notices Sixty cents per line.

FOR THE GERMAN EDITION ONLY.

Ten cents per line of space for each insertion.

One whole column (45 lines) or more, \$10 per column.

Business Notices twenty cents per line.

FOR BOTH EDITIONS—ENGLISH AND GERMAN.

Forty cents per line; \$45 per column.

Business Notices Sixty-five cents per line.

On Advertisements to stand three months or more, a discount of 5 per cent will be made from the above terms for each three months of the whole term paid for in advance. Thus:

5 per cent off for 3 months; 10 per cent off for 6 months; 15 per cent off for 9 months; and 20 per cent off for 12 months.

For Laborers, or those seeking employment, one half of the above terms.

**CHURCH HILL SEMINARY, NEW-CANNAH, Conn.** A Select Family School for boys. This is one of the oldest boarding schools in the country. The facilities for mental, moral and physical culture, render it just such a home, as parents desire for their sons.

The session commences first Monday in May. For Circulars apply to E. GOODENOUGH, 122 Nassau-street, New-York, or address—

Rev. J. L. GILDER, Principal, New-Canaan, Conn.

**\$33.50 FOR 14 WEEKS BOARD** and Tuition at FORT EDWARD INSTITUTE. Brick Buildings for Ladies and Gentlemen. For circulars address Rev. JOSEPH E. KING, Fort Edward, N. Y.



**1500 PICTORIAL ILLUSTRATIONS.** 9,000 to 10,000 NEW WORDS in the Vocabulary.

**Table of SYNONYMS by Prof. Goodrich.** With other new features. Together with all the matter of previous editions. In one volume of 1750 pages.

The 80 pages of illustrations, comparable in fineness to those of bank notes, are worth the price of the book—*Chas. Herald*. Price \$6.25. Sold by all Bookellers.

G. & C. MERRIAM, Springfield, Mass.

**HOW and WHEN to PRUNE GRAPE Vines, and all about their CULTIVATION and the MAKING of WINE, may be learned from the following valuable Books:**

Allen on the Culture of the Grape ..... \$1.00  
Chorlton's Grape Grower's Guide ..... 0.60  
Persoz's New Culture of the Vine ..... 0.25  
Remelin's Vine Dresser's Manual ..... 0.50  
Spencer on American Grape Vines ..... 0.25  
Pine's Vine and Wine Making ..... 0.30  
Books sent by mail, prepaid, on receipt of price. Catalogues furnished on application. All kinds of Agricultural and Horticultural Books supplied by

C. M. SAXTON, BARKER & CO., Agricultural Booksellers and Publishers of the Horticulturist, No. 25 Park-row, New-York.

**SCHOOL TEACHERS WANTED.**—The subscriber wishes to engage the services of a few School Teachers to act as traveling Agents in introducing his publications. For particulars apply immediately to

HENRY BILL, Publisher, Norwich, Conn.

**PROFITABLE Employment may be had** by addressing (post paid) R. SEARS 161 William-st., N. Y.

**Buckeye Premium Mower, WITH FOLDING BAR.**

AWARDED FIRST PREMIUM GRAND GOLD MEDAL BY U. S. AGRICULTURAL SOCIETY, AT THE GREAT SYRACUSE FIELD TRIAL.

The attention of Farmers is invited to the "Buckeye" for 1860, which will combine all those features which have given it its present reputation, that of

**THE BEST MOWING MACHINE IN THE WORLD,** in addition to several important improvements added the present season. The farmer intending to purchase a Mower will find it to his advantage to examine the Buckeye. The demand having considerably exceeded the supply for the past two seasons, farmers will avoid disappointment by sending their orders early in the season. Circulars forwarded on application, by mail or otherwise.

JOHN P. ADRIANCE, 165 Greenwich-st., near Courtlandt-st., New-York.

**Share's Patent Coulter Harrow,**



The best pulverizer of the ground yet invented. For a circular with description, and the testimony of practical farmers, who have used them, address at No. 45 Fulton-st.

TREDWELL & PRILL, owners of the Patent for New-York City and vicinity, New-Jersey, Pennsylvania and other States.

**RUSSIA OR BASS MATS. SELECTED** expressly for bedding and tying, GUNNY BAGS, TWINES, HAY ROPES &c., suitable for Nursery purposes, for sale in lots to suit by

D. W. MANWAKING, Importer, 248 Front Street, New-York.

**I HAVE FOR SALE a few thorough-bred** North Devon and Ayrshire Bulls and Heifers, that are desirable. ALFRED M. TREDWELL, 45 Fulton-st., N.Y. City.

**POULTRY FOR SALE—A FEW OF A** large variety pure bred Fancy Poultry

SHERMAN SMITH, Darien Depot Post Office, Conn.

**EVERY BODY should have Brower's** Patent Composition, 4 Reule at, advertised in this paper, on their Boots and Shoes. It is just the article needed.

**NEW-ROCHELLE BLACKBERRY WINE** for Sale—in packages of 5 Gallons or upward, at \$2.50 per Gall.—In boxes of 1 dozen quarts, at \$7.00 per Dozen—

DREW & FRENCH, No. 6 Erie Buildings, New-York.



**DESIGNING AND ENGRAVING ON WOOD.**

All who may desire to have designing or engraving done, will find it to their advantage to call on the subscriber, who is prepared to furnish on the most reasonable terms, and in the best style of the art, PORTRAITS, views of BUILDINGS, PLANS, &c., of Agricultural Implements, Horticultural and Scientific subjects of every description.

THOMAS COX,

103 Nassau-st., corner of Ann-st., New-York.

**SAELTZER & VALK.**

**Architects,**

OFFICES, BIBLE HOUSE, ASTOR PLACE, NEW-YORK. SUCCESSORS OF THE NEW AMERICAN STYLE for Cottages and Villas—being adopted by all gentlemen who have seen our examples—we call upon all about building this Spring, to examine our designs. For terms for making out plans, &c., enclose stamp and send for a circular containing an example.

**WILLCOX & GIBBS FAMILY**  
**\$30**  
**SEWING MACHINE**  
Simple, Noiseless, and Warranted to fill all the requirements of a

**Perfect Family Machine.**

Manufactured and Sold, Wholesale and Retail, by

JAMES WILLCOX,

No. 506 BROADWAY, opposite St. Nicholas Hotel, New-York.

**1860.**

**NEW CARPETS FOR SPRING TRADE.**

The Subscriber is prepared to exhibit, at his New and Spacious Stores, 273 CANAL, through to 31 HOWARD STREET, a fine assortment of CARPETS in New Patterns, viz.

**MEDALLION CARPETS IN RICH DESIGNS.**

Velvet Carpets ..... \$1.25 to 1.60  
Tapestry Brussels Carpets ..... 95¢ to 1.00  
Brussels Carpets (not Tapestry) ..... 1.12 1/2 to 1.40  
Three Ply Carpets ..... 1.00 to 1.10  
Super Ingrain Carpets ..... 62 1/2 to 75  
Extra Fine Ingrain Carpets ..... 45 to 60  
Common Ingrain Carpets ..... 25 to 37 1/2

**OIL CLOTHS** in superior quality, Druggets, Ruga, Mats, Mattings, Stair rods, &c., &c. All goods sold in Retail Department for Cash.

GEO. E. L. HYATT,

273 Canal and 31 Howard,

**ALSO—Sole Agent for selling, ATRURN POWER LOOM and Auburn Prison made 3 PLY INGRAIN and VENETIAN CARPETS.**

Carpets for Churches and Lodges made to order.

**SOMETHING NEW.** Shaler's Patent Cylindrical Brushes of all the various kinds which we claim as cheaper and more durable than the old style. Also the celebrated

SHALER CARPET SWEEPER

which is superior to all others, warranted to give satisfaction. SHALER CARPET SWEEPER CO. Exclusive Manufacturers, 278 Pearl-st., N. Y.

**Virginia Farm for Sale!**

The subscriber wishes to sell one of his farms, situated (near Potomac River) in King George County Va., containing 676 acres of land, a large portion of it very fine bottom—all of which grows corn, wheat, and tobacco, and grass, well. It is well supplied with timber and wood, and good water, in every field. The dwelling house is not in good order, but the out-houses, such as barn, corn cribs, &c. are all new. Persons living on the Potomac have their choice of markets at low freight—good mills are very near the farm, the society is among the best in Virginia. The price of this estate is \$12,500, on easy terms.

Address GEORGE E. GRAYNES,

Hammond Post Office, King George Co., Va.

January 30th, 1860.

**GREAT ATTRACTION! MICHIGAN LANDS!**

Any actual landless settlers can get a donation of forty acres of valuable State land in Michigan. He can also purchase any quantity of good State land at the price of \$1.25 per acre, with the term of ten years for payment. Further information will be furnished by addressing

R. DIEPENBECK, Michigan State Com'r of Emigration, 83 Greenwich-st., N. Y.

**\$1.600 WILL BUY A SMALL FARM**

of 27 1/2 acres, with new house and barn—stocked with fruit trees. Location one mile south of the city of Schenectady. Title good. For particulars address to

JOHN U. B. CLUTE, Schenectady, N. Y.

**WANTED.—Experienced Book Agents**

are wanted in each County in the United States and Canada, to introduce the *New Illustrated Encyclopedia of all Nations*, one thousand engravings, many of them colored maps, charts, &c. For an appointment and for further information, apply immediately to

HENRY BILL, Norwich, Conn.

**FOR THE DEAF! FOR THE DEAF!**

ARTIFICIAL EARS. Can be concealed from view. Address HASLAM BROS., 629 Broadway, New-York, and a descriptive Circular will be sent to any address.



---



### Isabella and Catawba Grape Vines

MADE FROM FRUIT WOOD ALONE.

OF proper age for forming vineyards, cultivated from and containing all the good qualities which the most improved cultivation for over twenty years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

The past season, though the coldest and most unfavorable for grape maturing we have had in many years, the subscriber reaped his whole crop, proving that his Isabella and Catawba have become perfectly acclimated. This gives him full assurance, that by improved cultivation, pruning, &c., a crop of good fruit can be obtained EVERY YEAR, in most of the Northern, all of the Middle, Western, and Southern States.

N. R. To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vineyarders, whom he has instructed in his mode of cultivation, and he will do all the labor of the vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor. When the purchase is large, and approved paper or other security can be offered, a liberal credit on most of the purchase will be given.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above. R. T. U. Also for sale at his PURK WINE AND GRAPE DEPOT, (No. 7 Clinton Hall, Astor Place, N. Y. City), Isabella and Catawba Wine in their PURITY.

All communications addressed to R. T. UNDERHILL, M. D. New-York or Croton Point, Westchester Co., N. Y., will receive attention.

### Iona Vines and Plants.

The subscriber's Catalogue, which is a treatise on the management of the vine, with numerous engravings, will be sent to applicants who enclose two three-cent stamps.

A fine stock of Delaware vines of unequalled quality, for sale singly or in quantity.

Wholess Catalogue for dealers. Clubs supplied at a discount. C. W. GRANT.

Iona, near Peekskill, Westchester Co., N. Y. P. S.—A good stock of Concord Vines for vineyards or gardens.

The Work on the Vine of F. Reubens, translated by Dr. Chas. Siedhoff, with additions by C. W. Grant, is in Press, and will be published in a few days.

It is profusely illustrated with engravings.

### New Hardy Grapes.

We are prepared to furnish one year old vines, (true to name) of most of the New varieties of Grapes. A so New Rochelle or Lawton Blackberry; Wilson's Albany, Hooker and Chilian Strawberry Plants. Priced Catalogues sent free to applicants.

HOG & CRAIN, Lockport, N. Y.

### Iona Grape Vines.

The subscriber has accepted the agency for the sale of C. W. Grant's Iona Grape Vines, and will keep a good supply constantly on hand at the Brooklyn Nursery, Gates Avenue, near Myrtle Avenue, Brooklyn, L. I. Catalogues sent to applicants who enclose one three-cent stamp.

Also C. W. Grant's large Catalogue to those who enclose two three-cent stamps.

Vines wholesale and retail. Clubs liberally dealt with, etc. ANDREW S. FULLER.

### Grafts Vines, and Plants.

By Mail, post-paid. See advertisement in Feb. No. F. A. ROCKWELL, Ridgefield, Conn.

### LAWTON BLACKBERRY PLANTS.

Circulars free. WM. LAWTON, New Rochelle, N. Y.

### BELL CRANBERRY PLANTS.

NEW-ROCHELLE (Lawton) BLACKBERRY HOP TREES, all of which are reliable, and at lowest prices. Circulars relating to culture, soil, price, &c., will be furnished gratis to applicants. Also Brackley's Orange, Red Antwerp, Black Cap, Franconia, and other varieties of RASPBERRIES.

Delaware, Loran, Rebecca, Diana, Concord, Hartford Prolific, Isabella, Catawba, and other varieties of GRAPE VINES, with a full assortment of TREES, PLANT, & ROSES, VINES, &c.

2,000 Norway Spruce and Arbor Vitae, 2 to 12 feet high, handsome form—it is said by others to be the finest lot in New-England—and at less prices. F. TROWBRIDGE & CO. New Haven, Conn., Feb. 1860.

**CRANBERRY CULTURE**—The Subscriber has issued a Circular on the CRANBERRY AND ITS CULTURE, and will forward them to all who send a postage stamp to prepay postage. Also has the PLANTS FOR SALE, and will send them in a fresh state, by Express, to all parts of the United States. Address, SULLIVAN BATES, Bellingham, Norfolk County, Mass.

### THE PERFECTED TOMATO.

Pom. D'oro Lesteriano.

This new species of Tomato—which has been brought to perfection by C. Edwards Lester, Esq., after many years of experiment, in Italy and the United States—has been pronounced by Agricultural Fairs, Farmers' Clubs, Horticulturists, Chemists and Epicures, to be in all respects superior to any other species. It excels in size, delicacy of flavor, thinness of skin, firmness of seeds, solidity of meat, prolific bearing, and ease of culture. It matures quicker, and hangs longer on the vine than any other.

We have a small supply of seeds saved by Mr. Lester last season. Price, per packet, containing 24 seeds, 25 cts. If ordered by mail, a three-cent stamp must be added for return postage. J. M. THORNBURN & CO., 15 John-st., New-York.

### Seed Peas.

Cedonulli and Black-eyed Marrowfat for sale by R. A. GOODENOUGH, 37 Pearl-st., New-York.

### FIVE Splendid Strawberries.

HOOKER—Very productive; large, beautiful, and of UNEQUALLED QUALITY. WILSON'S ALBANY—Exceedingly productive; FINE FOR MARKET.

TRIOMPHE DE GAND—IMMENSE SIZE; splendid appearance and high flavor. PYRAMIDAL CHILIAN—Very handsome, productive, hardy, and good flavor.

LARGE EARLY SCARLET—THE EARLIEST; productive, and excellent.

As it is impossible to secure all the excellences of this most popular fruit in one variety, we offer the above as comprising, in five sorts, the various points desirable.

We again confidently RECOMMEND the HOOKER, as by far the best for family use, if only one sort is to be planted; combining a greater number of excellences than any other variety.

PRICE—(Securely packed to be forwarded by express.) Per 100 plants of any of the above varieties, \$2.00

" 100 " 20 of each variety, 3.00

" 500 " 100 of each variety, 7.50

" 1000 " of the HOOKER, 10.00

H. E. HOOKER & CO., COMMERCIAL NURSERIES, Rochester, N. Y.

The following are some of the distinguishing points of the "Hooker," which originated in our Nurseries.

The plant is very vigorous and hardy;

It is extremely productive;

It is of the largest size;

It is very dark colored; flesh, also deeply colored;

It is the only large and productive Strawberry, which has also high flavor and quality; it is for the combination of these points that we claim its superiority;

It is excellent for preserving—retaining its high, rich color, when preserved;

It has perfect flowers—and consequently requires no other variety planted near to fertilize it.

Our nurseries were established in 1839; and rank now among the most extensive in the United States—occupying 200 acres. They are planted exclusively with Nursery productions, embracing every variety of Fruit and Ornamental Trees, Shrubs, Small Fruits, Roses, &c., &c.

### Strawberry Plants.

Wilson's Albany Seedling, and all other varieties of choice Strawberries, packed to go to any part of the country.

Lawton or New-Rochelle Blackberry Plants.

Rhubarb Roots; Asparagus Roots.

Raspberry Plants of all good varieties.

Fruit and Ornamental Trees and Shrubs, Evergreens, and all kinds of Plants sent to or by, carefully packed.

R. L. ALLEN, 191 Water-st., New-York.

### New and Valuable Squashes.

Seeds of the	Per pkt.	Price
Honolulu	do.	25c.
Golden Green Japan	do.	25c.
White Lech	do.	25c.
Mammoth China	do.	25c.
Mammoth Chili	do.	25c.
Imp'd Lima Marrow	do.	25c.
Sandwich Island	do.	25c.
Hubbard, per lb.	\$1.50 per oz.	25c.
True Seven Year Pumpkin	Per pkt.	25c.

### TREE AND SHRUB SEEDS.

	Per lb.	Price
Norway Spruce	do.	75
European SILVER FIR	do.	\$1.00
Balsam Fir	do.	3.00
Hemlock Spruce (clean seed)	do.	6.00
American Arbor Vitae (clean seed)	do.	6.00
Chinese	do.	2.00
Stone Pine	do.	1.50
Black Austrian Pine	do.	3.00
Scotch Fir	do.	1.50
Scotch Larch	do.	3.00
American Bald Cypress (beautiful, per qt.)	do.	30
Strawberry Tree (Arbutus Unedo) per oz.	do.	40
Hon Tree, per oz.	do.	25

Tree seed Catalogues on application to J. M. THORNBURN & CO., 15 John-st., New-York.

### The Hubbard Squash.

Having given the Hubbard Squash its name, and having been the first to introduce it to public notice, I offer the earliest seed raised at 12 cents for a package of 50 seed, post paid, or \$2.25 for one pound of seed, post paid, to any part of the United States—California and Oregon an extra charge. Seed dealers supplied at a discount. It is recommended by Hon. Marshall P. Wilder, Hon. Edward Everett, the keepers of the principal hotels, seed dealers, and the whole Agricultural Press of New-England, as the sweetest, dryest, and richest flavored of all winter squashes. It has succeeded admirably in New-England, the West, in New-York, and in other States.

JAMES J. H. GREGORY, Marblehead, Mass.

### HUBBARD SQUASH, WARRANTED PURE.

Packets containing 50 SEEDS will be sent to any address in the Union on receipt of five three-cent stamps. 100 Seeds for nine three-cent stamps.

Please address B. K. BLISS, Springfield, Mass.

50 Seeds of the celebrated Hubbard Squash, post paid, for 15 cents. P. SUTTON, Ransom, Luzerne Co., Pa.

### Garden Seeds. Garden Seeds.

BY MAIL, POST-PAID.

The following varieties of Vegetable Seeds, such as Beets, early and late. Quinns, of different kinds. Melons, do. Tomatoes, do. Cucumbers, do. Spingh, do. Lettuce, do. Cauliflower, do. Radishes, do. Celery, do. Squash, do. Parsley, do. Turnip, do. raised by the subscriber, and warranted of the best quality put up in the usual style, will be sent by mail, POSTAGE PAID at FIVE CENTS per paper. G. R. GARRETTSON, Flushing, Long Island, N. Y.

### JOSEPH E. MACOMBER, Wholesale

Vegetable Seed raiser, Portsmouth, R. I.

### Rare and Beautiful Flowers.

B. K. BLISS, SEEDSMAN AND FLORIST, SPRINGFIELD, MASS.

WOULD respectfully inform his friends and patrons that his new descriptive catalogue of FLOWER AND VEGETABLE SEEDS will be ready for delivery in February, and will be mailed to all applicants enclosing a three-cent stamp. Much pains has been taken in preparing it, and it will contain, in addition to the information usually found in such lists, many descriptive and cultural notes for the benefit of the amateur and professional florist.

It will embrace all that is new and most desirable among Annuals, Biennials, Perennials, and Green House Seeds, alike suitable for the Flower Garden, Pleasure Grounds, Lawns, Shrubs, and the Conservatory, as well as many matchless novelties of the highest merit, which have been selected by his European correspondents from the most reliable sources.

### COLLECTION OF FLOWER SEEDS BY MAIL, POST-PAID.

The following collections have been sent out from his establishment for the past six years, and are now favorably known in every section of the country.

ASSORTMENT No. 1—Contains twenty choice varieties of Annuals—\$1.00.

ASSORTMENT No. 2—Contains twenty choice varieties of Biennials and Perennials—\$1.00.

ASSORTMENT No. 3—Contains ten extra fine varieties of Annuals and Perennials, embracing many of the new and choicest in cultivation—\$1.00.

ASSORTMENT No. 4—Contains five very choice varieties selected from Prize Flowers of English Fanciers, German Carnations, and Proteas, Pinks, Verbenas, Trilliums, French Asters, Double Hollyhocks—\$1.00.

Any one remitting \$3.00, will receive the four assortments, postage free.

The Seeds contained in the above assortments are of his own selection. Purchasers who prefer to make their selection from the Catalogue, will be entitled to a discount proportionate to the quantity ordered.

All orders must be accompanied with the Cash, which can be remitted in current bank bills or post-office stamps.

Please address B. K. BLISS, Springfield, Mass.

### New and Rare Flower Seeds.

	Per pkt.	Price
Calitrope pedata	do.	25c.
Acrocinum roseum	do.	10c.
A. onos. Warsawensis	do.	10c.
Clarkia pulchella Var. integrifolia	do.	25c.
New Anemone flowered Sweet William	do.	25c.
Dracopis Hedewigii	do.	25c.
Dianthus Chinensis laciniatus	do.	25c.
Gottchea gymnosperma	do.	10c.
Ipomoea tricolor	do.	10c.

with hundreds of other new varieties for which see our Flower Seed Catalogue.

Also assortments containing 5 Beautiful varieties of F. liliif. Drummondii for 40c.

7 do. do. Portulaca 25c.

J. M. THORNBURN & CO., 15 John-st., New-York.

N. B.—Spergularia pilifera, per pkt. 5c.

### TO ALL LOVERS OF FLOWERS.

Fifty flowering plants and Twenty-five varieties of flower seeds for Five Dollars, package included.

The undersigned having a large stock of bedding out plants is prepared to distribute them as above. The collection will consist of the most showy and best varieties for giving a continuous display of flowers during the Summer and Fall, together with a selection of twenty five different kinds of flower seeds of the most popular sorts. This is a favorable opportunity for parties unacquainted with the names of plants, to obtain a supply of useful and showy varieties for a small outlay.

Persons desirous of obtaining this collection, will please send their orders early, as they will be sent out in strict rotation on and after the 1st of April. Cash must invariably accompany the order.

SPECIAL TERMS TO CLUBS. Parties forming clubs for ten or more, to be sent to one address, will receive one collection over. This will be a rare chance for any one having a circle of floricultural friends, to obtain a collection free.

JOHN HENDERSON, Washington Nursery, Jersey City, N. J.

### BEAUTIFUL FRENCH HYBRID GLADIOLUS.

We have just received fifty named varieties of the above species.

Price from 15 cts. to \$1.50 each.

All other varieties of Gladioli, Jacobean Lilies, Tulips, Tiger Flowers, &c., &c., &c.

For which see our Flower Seed Catalogue.

J. M. THORNBURN & CO., 15 John-st., New-York.

### Flower Seeds. Flower Seeds.

BY MAIL, POST-PAID OR OTHERWISE.

The subscriber has for many years past spared no pains or expense in procuring both in Europe and this country every variety of Annual Flower Seeds, that could be obtained, and after cultivating over one thousand varieties, has selected about one hundred kinds with a view of including all the most desirable for hardy garden cultivation, a list of which will be sent to any one. And for THIRTY THREE KINDS of any on the list will be sent by mail, postage paid.

G. R. GARRETTSON, Flushing, Long Island, N. Y.

### Flower Seeds by Mail.

	Price
Our own selection of 25 Varieties for	\$1.00
50 do.	2.00
100 do.	4.00

Persons ordering either of the above assortments may rely upon a beautiful collection.

J. M. THORNBURN & CO., 15 John-st., New-York.

### Connecticut Seed Leaf Tobacco.

Packets containing half an ounce (8000 seeds) sent to any address in the Union post-paid, on receipt of nine three-cent stamps. This seed was raised by one of the most successful growers in Connecticut, and is guaranteed to be of the very best quality.

Address B. K. BLISS, Springfield, Mass.

### Japan Apple Pie Melon.

Packets containing 30 SEEDS, with directions for use, will be sent by mail, post-paid to any part of the Union on receipt of nine three-cent stamps.

Please address B. K. BLISS, Springfield, Mass.



## Seeds. Seeds. Seeds.

I am now supplied with one of the largest and most complete assortments of GARDEN, FIELD, GRASS, FLOWER, and FRUIT SEEDS ever offered to the public. My stock has been made up with much care. A large portion are of home growth, being grown expressly for me, which I can recommend as true to name, and of the best quality. Care has been taken to have them perfectly clean.

Among my assortment may be found all the improved varieties of CORN for Garden and Field culture.

BEANS—Early Bush and Snap shorts.

Large Lima and Horticultural Pole Beans.

CABBAGE—Both early and late of American growth.

CARROT—Early Horn, Long Orange, Altringham, White Belgian, of American growth.

TURNIPS—Early Dutch, Red Top, Strap Leaf, Long White French, White Globe, Yellow Aberdeen, Purple-top Ruta-baga, all of American growth.

SQUASH—Hubbard and Boston Marrow, &c.

PEAS—Epps Monarch, Lord Nazlan, Eugene, Competitor, Sebastopol, Sangster No. 1, Tom Thumb and all other varieties.

POTATOES, early, and for general crop.

OATS—Choice varieties, both American and imported.

SPRING WHEAT—Canada Clubb, China Tea, Golden Drop or Scotch Fife.

SPRING RYE—SPRING BARLEY.

CLOVERS—White Dutch, Lucerne, Trefoil, Large Red, Medium Red.

GRASS SEEDS—Timothy, Hungarian, Creeping Bent, Red Top, Orchard, Blue, Fescue, Meadow, Rye or Ray, Green, Sweet Vernal, Sainfoin, Fescue, Fine Mixed Lawn.

SPRING VETCHES OR TARES, Chinese Sugar Cane, Tobacco—Connecticut Seed Leaf, Grafting Wax, Bass Marling, Cotton Seed, Sunflower, Whale Oil Soap, Bird Seed, Flax, Brown Corn, &c.

Catalogues furnished on application.

R. L. ALLEN, 191 Water-st., New-York.

## BRIDGEMAN'S

HORTICULTURAL ESTABLISHMENT,  
Nos. 876 & 878 BROADWAY,  
NEW-YORK.

## SEEDS. SEEDS. SEEDS.

The subscriber has now on hand a full supply of GRASS, VEGETABLE, HERB, and FLOWER SEEDS, embracing the old favorites, and including several new varieties of superior excellence. For sale (at the lowest market price), for quality and quantity, or in packages for retail trade.

New Catalogues furnished on application.

Also an assortment of HORTICULTURAL IMPLEMENTS, AGRICULTURAL AND HORTICULTURAL BOOKS.

All orders attended to promptly, and with exactness.

ALFRED BRIDGEMAN.

## BLISS'S COLLECTION OF VEGETABLE SEEDS.

The following collections, comprising every desirable variety in cultivation, have been sent out by us for three years past, and are now favorably known in various sections of the Union.

No. 1—COMPLETE COLLECTION—Sufficient for a large garden for one year's supply—comprising twelve quarts of Peas of the very best sort for succession—4 varieties each of Beans, Cabbage, Turnips, Corn, and all other Vegetable Seeds in proportionate quantities, for a full supply. \$10.00

No. 2—COMPLETE COLLECTION for a moderate sized garden, comprising 6 quarts of peas, and most of the other varieties in proportion. \$5.00

No. 3—COMPLETE COLLECTION for a small garden. \$3.00

The quantities included in the above collections will be found detailed at length in the Catalogue, which will be forwarded to applicants on receipt of a Postage Stamp.

All orders must be accompanied with the Cash or a satisfactory reference.

B. K. BLISS,  
Springfield, Mass.

## SPRING GARDEN SEEDS.

The most complete assortment ever offered to the public.

Also

Kentucky Blue Grass.

Orchard Grass.

Timothy.

Red Top.

Rhode Island Bent Grass.

English and Italian Rye Grass.

White and Red Clover.

Lucerne.

SEED POTATOES, a choice assortment.

For descriptions and prices send for our Catalogues.

J. M. THORBURN & CO.,  
15 John-st., New-York.

TO WHOLESALE DEALERS IN GARDEN, FIELD, and GRASS SEEDS—I have taken the greatest care in raising and selecting a large and pure stock of every variety of Seeds required by the Gardener, Farmer, and Planter, and purchasers may depend on their being fresh and true to name.

Sales will be made in bulk, by the ounce, pound, quart, bushel, or in papers distinctly labeled.

My Seed List contains all the old varieties, and many new kinds, all of the very best quality, and chiefly raised for me.

FRUIT SEEDS—Apple, Pear, Quince, Plum, Apricot, Cherry, Currant, Gooseberry, Raspberry, Strawberry, Peach, &c.

HERBES—Honey Locust, Yellow Locust, Buckthorn, Osage Orange, Arbor Vitae, &c.

BOOKS—All works furnished at publisher's prices.

My prices are as low as any others for the same quality of seeds.

Orders by mail will be attended to with exactness and promptitude.

R. L. ALLEN, 191 Water-st., New-York.

## Grass, Field, and Garden Seed.

We have just received our NEW stock of GRASS, FIELD, and GARDEN SEEDS, to which we call the attention of purchasers and consumers. All seeds warranted pure and fresh. "Send for our list."

A. F. MAYHER & CO.,  
Importers, Growers, and Dealers in Seeds,  
No. 34 VESEY ST., New-York.

"Remember new stand, No. 51 VESEY ST."

## Pear Seed!! Pear Seed!!

We have still on hand a small quantity of warranted Pear Seed (Imported).....\$1.50 per lb.

do do (American).....3.00 "

Apricot Pits.....75 "

Apple Seed, per bushel.....2.00 "

J. M. THORBURN & CO.,  
15 John-st., New-York.

## EARTH ALMOND—SOUCHE—CHUFA.

(Cyperus esculentus.)

These edible roots, which were recently introduced from the south of France, have now been proved to be of great value in all parts of our country. In France they are eaten just as we use peanuts. They are very sweet and pleasant, much liked by children and sought after with avidity by hogs and other animals. An orange (drink) of very pleasant flavor is there manufactured from them, and also an oil is extracted from them. They should be planted early in Spring, in light and moist soils well pulverized, in drills fifteen inches apart and about three inches in the row. They need but little hoeing, as they spread and cover the ground. The produce is very great, being usually three or four hundred for one, and the roots are formed in such masses that they are readily collected. The crop should be gathered before the ground freezes, and stored in cellar for Winter use. There is probably no root that can be grown so profitably for a hog pasture, the hogs to be turned into it in September or October.

They will be furnished at \$1 per lb., or 25 cts. per 100 roots. For \$1, I will send 200 roots by mail, post-paid.

SEEDS—GARDEN, VEGETABLE, AND FLOWER SEEDS of all kinds, have been largely grown by the subscriber for more than thirty years past. He has now nearly one hundred acres devoted to this purpose, and can furnish seeds of all descriptions, of the choicest kinds, and purest quality, at the lowest prices, and in any quantity desired.

G. R. GARRETON, Flushing, Long Island (N. Y.)

## Marblehead Drumhead.

This Cabbage is by far the most popular kind sold in Boston Market. It originated in Marblehead, Mass., and holds the same rank among cabbages, as the Hubbard squash among squashes, being distinguished for its reliability for setting a symmetrical head remarkably hard and heavy. It is early, very fine grained, and sweet, with a stump, when properly cultivated, of but one to two inches in length. Under fair cabbage culture ninety-five per cent will set good heads to the acre; under good culture, frequently every plant on an acre will set a marketable head. A package of the best variety of this cabbage, the Stone-Mason, containing seed more than sufficient to raise a Winter's supply for one family, forwarded post-paid to any part of the United States, California and Oregon, excepted, for 25 cts. One pound of seed forwarded, post-paid, on the receipt of \$1.00, or for \$3.00 to parties paying their own freight. If this Cabbage does not prove itself to be what I recommend it, the money will be returned, as I aim to introduce no product new to the public that will not be a full return for the money they invest. I will give five dollars to any person for one ounce of seed of any Drumhead Cabbage, that will excel this variety in the above named traits. Any person desiring to procure a package of the Marblehead Drumhead Cabbage, can obtain it at the same price. This is the largest cabbage in the world, averaging, as grown by Marblehead farmers, 30 lbs. per head by the acre, and sometimes reaching 60 lbs. a head, and measuring nearly six feet around the solid head.

JAMES J. H. GREGORY, Marblehead, Mass.

## Dwarf Broom Corn Seed.

The undersigned offers a very desirable variety of Dwarf Broom Corn Seed for sale, the stalks of which, on an average, are not more than eighteen inches to two feet high to the brush, and the brush is of about the same length. The whole plant being only 3 to 4 feet high. The broom is far superior to the old tall variety, being much finer in fibre and much more elastic. It will yield fully twice the amount of brooms from an acre of land than the old tall variety does. On account of its early maturity it bears closer planting, and will resist the severest storm, and is never blown down. The brush is wrapped up about half its length in the top leaf, which obviates it from bending down, and consequently keeps the broom straight. This Dwarf variety will prove indispensable to all cultivating this valuable crop. Price 15 cents per ounce package, or \$2 per lb. Sent by mail post-paid. Address K. B. GOOD,  
Manchester, York County, Pa.

## QUEEN'S SEEDSMEN

Peter Lawson & Son,  
London—27 Great George St. Westminster, S. W.

On account of the numerous applications which have been made to Peter Lawson & Son, to send their List of Seeds and Nursery Produce to the United States and Canada, they beg leave to inform the Trade in America that they are prepared to furnish them with

## PRICE LISTS.

and to assure them that any orders they may be favored with will receive their best attention.

All orders must be accompanied by Cash, satisfactory references in England, or may be forwarded through

CRAIG & NICOL,  
No. 6 Bowdoin-green, New-York.

## NEW-YORK AGRICULTURAL IMPLEMENT, Machine, and Seed Warehouse.

R. L. Allen, 191 Water-st., N. Y.

The attention of Farmers, Merchants, and all interested is invited to my large and unequalled assortment of Agricultural and Horticultural Implements and Machines.—The greatest care in the selection of articles I offer for sale, to have them of the best and most approved patterns, and that they be made in the most substantial manner.

I particularly call attention to my superior Burr Stone and Iron Grain Mills, Horse-Powers, Threshers, Mowing and Reaping Machines, Saw Mills, Corn Shellers, Hay, Fodder, and Stalk Cutters, Presses, Pumps, Brick Machines, Carls and Wagons, Cotton Sweeps, Cultivators, Harrows, Plows of every variety, Garden Tools, &c.

FERTILIZERS—Peruvian Guano, Bone Dust, Phosphate of Lime, Dried Blood and Wool, Plaster, &c.

Orders solicited for the above, and for STEAM ENGINES and MACHINERY OF ALL KINDS, which shall receive prompt attention, and be filled on our best terms.

## AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, the latest improved.

FIELD and GARDEN SEEDS, from the most reliable growers, warranted pure.

No. 1. PERUVIAN GUANO.

SUPERPHOSPHATE OF LIME.

BLOOD and WOOL MANURE.

BONE DUST, LAND PLASTER.

POUDRETTE &c.

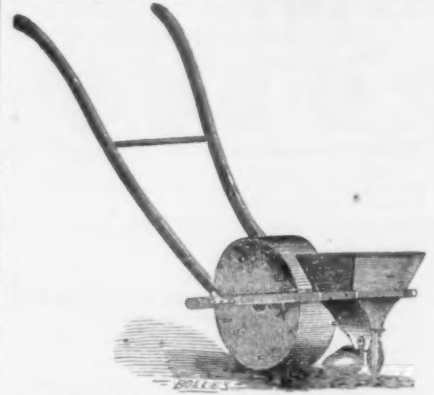
Sold by GIFFING, BROTH & CO.,  
60 Cortlandt-st., New-York.

## Iron Amalgam Bells,

FOR SCHOOLS, CHURCHES, FACTORIES, SHOPS, HOTELS, FARMS, &c.

only one third price of Brass Composition Metal, with tone equal. Prices: 50 lbs Bell \$6; 75 lbs \$10; 100 lbs \$15; 150 lbs \$20—Each has yoke and standard and crank. 300 lbs \$35; 400 lbs \$50, has wheel added. On receipt of price will deliver to Railroad, Steamboat or Express Co., marked any address.

M. C. CHADWICK & CO., No. 17 Spruce-st., New-York.



Wethersfield Seed Sower.

ATTENTION

SEEDGROWERS, GARDENERS,

AGRICULTURISTS,

AND DEALERS IN

Agricultural Implements!!

The above machine is the invention of T. B. ROGERS, of Wethersfield, Conn. (a place celebrated as a great Seed-growing town) and where large numbers of root crops are cultivated. It is there extensively in use.

It was Awarded the Highest Premiums at the Connecticut State and Hartford County Fairs.

COMMENTS OF THE PRESS.

Just the implement which farmers and market gardeners have long needed. Every kind and size of seed is sown. Even parsnip seeds which have baffled every machine hitherto used, are scattered by Mr. Rogers' implement with just as much precision and evenness, as any other Seed.—Homestead Agricultural paper.

The labor in working is just about equal to trundling an empty wheelbarrow.—Christian Secretary.

It is equally well adapted to large or small seed of regular or irregular form. It sows beans with perfect regularity, and can be changed in an instant for the sowing of cabbage, mustard, or any other seed. Nothing comes amiss to this implement. It makes the drill in the soil, deposits the seeds, covers them, and rolls the surface, all as it goes along. IT IS PERFECT; and ALL JUDGES present at the trial, AGREE UPON THIS POINT.—Hartford Times.

Its great advantages are, that it lays the seed with perfect regularity, never crowding any, nor leaving blank spaces, and that no seed can by any means fall from it when it is not in motion. Hartford Courant.

It sows as fast as a man can walk.—Homestead Agricultural paper.

It does better work, and faster, than seed drills that sell at double its price.

For particulars send for a circular. Dealers supplied at the usual discount. Their orders should be forwarded immediately, as the supply may be short this season. No implement dealer should be without one of these at the present time, from 12 to 500, according to the largeness of his market. Price \$5.

RODNEY KELLOGG,  
General Agent of the United States,  
201 & 205 Commerce-st.,  
Hartford, Conn.

February, 1868.

Farmers Read! Farmers Read!!

The best of all modern inventions in "Share's" Coulter Harrow, Pulverizer and Grain Coverer, which was used last season with grand success by very many of the best farmers in this country, and pronounced *Excelsior*. The price is only \$15, and it weighs 185 lbs., and draws lighter than a common harrow. Farmers having "Corn Stubble," or Fall plowed land of any kind, who use this machine, do not require to use the Plow in the Spring, as it answers for the Plow, Cultivator and Harrow Combined. This Coulter Harrow will save its cost in a week's work in time alone. For Particulars address

WM. W. EGGLESTON,  
Dealer in Seeds and Implements, Albany, N. Y.

## EXCELSIOR BURR STONE

Farm and Plantation Mill.

AGENCY NO. 45 GOLD-ST., N. Y.

The experience of the past year has tested the value of the above invention, and proved that it is the Mill of the age, and best entitled to public confidence; that it is bound to supersede those now in use, on account of its intrinsic worth.

For hulling Buckwheat it is superior to all other inventions; and for grinding middlings, no other mill can compare with it.

One half the power required to run the ordinary Burr Stone Mill, will drive this, and at the same time do as much and as good work.

Descriptive circulars sent by J. A. BENNET, Sole Agent.

## HAY—HAY—HAY.

INGEROLL'S IMPROVED PORTABLE HAY PRESS, for packing Hay, Cotton, Rags, Hemp, Broom Corn, &c., &c., 700 of these machines having been sold during the last three years, letters from every State in the Union testify to their superiority, convenience and economy.

Price. Hay Press No. 1, \$50; wt. of bale 150 to 200 lbs. No. 2 \$75; wt. of bale 250 to 300 lbs. Cotton Press, \$150. Any sizes and for any purpose of packing, made to order and delivered on shipboard in New-York. Address for Circulars or Machines FARMERS MANUFACTURING CO., Greenpoint, Kings Co., N. Y.

## HAY PRESSES.

HAY PRESSES of every description, also Horse Powers and Threshers at

A. F. MAYHER & CO'S  
Agricultural and Seed Store,

Remember No. 34 VESEY-ST. No. 34 Vesey-st., N. Y.

"Send for our circular"

## EAGLE CORN SHELLER—This Icon-

sider the best hand Corn-Shell made. It works easily, she is rapidly and perfectly clean. Price \$10. Also double, to be worked by hand or horse power. Price \$18. For sale by

R. L. ALLEN, 191 Water-st., New-York

## THE PEOPLE'S MILL.

### SANDFORD'S PATENT.

A FARM MILL, Portable, Simple, Compact, and made on an entirely new principle, with plates having a reciprocating and oscillating, instead of a rotary motion, with all the power applied within one inch of the center of the shaft, and one that has been fully tested and improved by two years' experience, is now offered to the public. Every Mill is tested, and no one is sent out unless it will grind a bushel of hard Corn fine enough for stock feed in eight minutes; many kinds of Grain it will grind much faster.

It is the PREMIUM MILL for the People, and obtained the SILVER MEDAL at the late Exhibition at the American Institute in the City of New-York.

THE People's Mill can be put into any saw mill.

THE People's Mill is the cheapest Mill ever offered to the public.

THE People's Mill is the simplest Mill ever made.

THE People's Mill has the most durable in use.

THE People's Mill has the most grinding surface of any portable mill.

THE People's Mill requires less power than any other doing the same amount of work.

THE People's Mill requires less speed than any other mill.

THE People's Mill is adapted to any kind of power.

THE People's Mill is not a rotary mill.

THE People's Mill obviates all the objections to the cast-iron rotary mill.

THE People's Mill will grind all kinds of grain, coarse or fine, for feed.

THE People's Mill will grind Plaster, Bones, Salt, all kinds of Grain, Malt, Peas, Beans, Spices, &c., &c.

THE People's Mill requires about two-horse power.

THE People's Mill only requires about two hundred and fifty revolutions per minute.

THE People's Mill largest size, will grind from one hundred and fifty to two hundred bushels of grain in 24 hours.

THE People's Mill may be renewed at the cost of the plates, which will be furnished at fifty cents each.

The plates are made of hard iron, dressed or grooved on both sides, and the reciprocating motion keeps the grinders sharp. There is no bolt to it, which, we think, experience has proved of no use on portable mills. The common sieve is sufficient for all ordinary family purposes. Three sizes—

No. 1, a Hand Mill—price \$20, No. 2 \$30, No. 3 \$40; LIBERAL DISCOUNT MADE TO DEALERS.

A Mill may be seen in constant use at my shop, also at No. 17 Spruce st., New-York, a few doors below the Tribune Building. I will fill all orders for better at cost.

Address R. L. HOWARD, Buffalo, N. Y.

I also manufacture the Improved Ketchum Grass and Grain Harvester.

## SPECIAL NOTICE TO FARMERS.

### No. 54 Vesey-st., New-York.

Farmers are most respectfully informed that

MAYHER'S AGRICULTURAL WAREHOUSE AND SEED STORE

is now located at No. 54 VESSEY STREET, near Washington Market, and on the North River side of the City, where may be found the LARGEST, BEST, and MOST COMPLETE ASSORTMENT of AGRICULTURAL IMPLEMENTS, MACHINERY and SEED EVER offered for sale in this city, and which we sell at

LOWER PRICES than any house in the city. We manufacture all of our own Implements and Machines, and purchasers will find it to their interest to call on us and see for themselves. Catalogues furnished on application.

A. F. MAYHER & CO.,  
Agricultural Implement Manufacturers,  
No. 54 Vesey-street, New-York,  
west side Broadway.

"Remember, it is No. 54 VESSEY ST."

## IMPROVED CYLINDER STALK AND STRAW CUTTER.

A superior machine, doing excellent and rapid work—without liability to get out of repair. Price \$16. For sale by R. L. ALLEN, 191 Water-st., New-York.

## ALBANY TILE WORKS, Corner Clin-

ton-avenue and Knox-st., Albany, N. Y.—The subscribers, being the most extensive manufacturers of

DRAINING TILE in the United States, have on hand, in large or small quantities, for Land Draining, Round, Sole and Horse Shoe Tile, warranted superior to any made in this country, hard-burned, and over one foot in length.

Orders solicited. Price list sent on application C. & W. McCAMMON, Albany, N. Y.

## DRAIN TILE MACHINE for making

Tile for underground draining. Both hand and power machines constantly on hand by A. LaTourrette, Waterloo, N. Y.

## PLOWS.—Cast Iron or Steel, of every

variety—Sod, Stubble, Side-Hill, Sub-Soil, Double-Mold, Sod and Sub-Soil Double Plows; Road and Breaking up Plows; Plows with 2 to 6 molds for Plowing in Wheat, &c. Garden Plows, Cotton Weeders, Harrows, Seed Sowers, Garden Tools, &c. For sale by R. L. ALLEN, 191 Water-st., New-York.

## To Farmers and Gardeners.

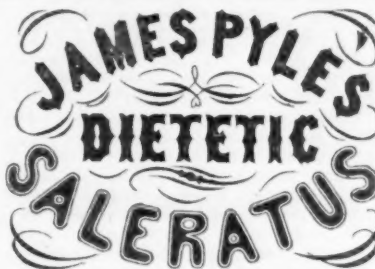
The subscribers offer for sale 60,000 barrels of poudrette, made by the Lodi Manufacturing Company, in lots to suit purchasers. This article is in the twentieth year of its introduction into this country, and has outlived fertilizers of every other description, for the following reasons:—

1st. It is made from the night soil of the City of New-York, by the L. M. Co., who have a capital of over \$100,000 invested in the business, which is at risk should they make a bad article.

2d. For corn and vegetables it is the cheapest, neatest, and handiest manure in the world, it can be placed in direct contact with the seed, forces and ripens vegetation two weeks earlier, prevents the cut worm, doubles the crop, and is without disagreeable odor. Three dollars worth or two barrels is all sufficient to manure an acre of corn in the fall.

Price—1 bbl. \$2—2 bbls. 3.50—5 bbls. \$8, and over 6 barrels \$1.50 per barrel, delivered free of cartage to vessel or railroad in New-York City.

A pamphlet containing every information, and certificates from farmers all over the United States, who have used it from two to seventeen years, will be sent free to any one applying for the same. GIFFING BROTHERS & CO., North River Agricultural Warehouse, 60 Courtland st., N. Y.



The most effectual and wholesome Saleratus ever introduced.

FOR SALE by GROCERS Everywhere.

MANUFACTORY,  
345 Washington St., cor. Franklin St.,  
NEW YORK.

## SAPONIFIER,

### OR

## CONCENTRATED POTASH.

A new article for making Soap, warranted to make Soap without Lime, and with but little trouble. One pound will make 12 gallons of good strong Soft Soap. Manufactured and put up in 1 lb. and 4 lb. cans, (in small lumps,) at the CHALLENGE CHEMICAL WORKS, New-York.

E. R. DURKEE & CO., Proprietors, 181 Pearl-st., N.Y.

## PURE POTASH

in 6 lb. cans, in lumps, for sale as above.

## SOMETHING NEW.

### B. T. BABBITT'S

#### BEST MEDICINAL SALERATUS.

Is manufactured from common salt, and is prepared entirely different from other Saleratus. All the deleterious matter extracted in such a manner as to produce Bread, Biscuit, and all kinds of Cakes, without containing a particle of Saleratus when the Bread or Cake is baked, thereby producing wholesome results. Every particle of Saleratus is turned to gas and passes through the Bread or Biscuit while baking; consequently nothing remains but common Salt, Water and Flour. You will readily perceive by the taste of this Saleratus, that it is entirely different from other Saleratus.

It is packed in one pound papers, each wrapper warranted. B. T. Babbitt's Best Medicinal Saleratus, also, picture, twisted loaf of bread, with a glass of effervescent water on the top. When you purchase one paper you should preserve the wrapper, and be particular to get the next exactly like the first—brand as above.

Full directions for making Bread with this Saleratus and Sour Milk or Cream Tartar, will accompany each package; also, directions for making all kinds of Pastry; also, for making Soda Water and Seidlitz Powders.

## MAKE YOUR OWN SOAP

WITH B. T. BABBITT'S

## PURE CONCENTRATED POTASH.

Warranted double the strength of ordinary Potash; put up in cans—1 lb., 2 lbs., 3 lbs., 6 lbs., and 12 lbs.—with full directions for making Hard and Soft Soap. Consumers will find this the cheapest Potash in market.

Manufactured and for sale by B. T. BABBITT,  
Nos. 68 and 70 Washington-st., New-York,  
and No. 38 India-st., Boston.

## Important to Housekeepers!

## E. R. DURKEE & CO'S

### SELECT SPICES.

In this age of adulterated and tasteless Spices, it is with confidence that we introduce to the attention of housekeepers these superior articles. We guarantee them not only

absolutely and perfectly pure,

but ground from fresh Spices, selected and cleaned by expressly for the purpose, without reference to cost. They are beautifully packed in tinfoil, (lined with paper,) to prevent injury by keeping, and are full weight, while the ordinary ground Spices are almost invariably short. We warrant them, in point of richness and flavor,

beyond all comparison,

as a single trial will instantly prove.

Manufactured only by E. R. DURKEE & CO., New-York.  
For sale by dealers in choice groceries generally.

## BONE MANURE.

SAWINGS, TURNINGS AND CRUSHED BONES, for sale by the manufacturers, in large or small quantities.

A. LISTER & BROTHER,  
Tarrytown, Westchester Co., N. Y.

## Bone Manure.

Pure ground bone for fertilizing purposes, superior to any in market. For sale by the manufacturers.

GEO. H. MOLLER & CO., 197 Wall-st., New-York.  
Samples sent by express.

## FARM PRODUCE

Sold on Commission.

Such as Flour, Butter, Cheese, Lard, Provisions of all kinds, Grain, Eggs, Poultry, Game, &c. &c.

HAIGHT & EMENS, 226 Front-st., New-York.

Refers to the Editor American Agriculturist.

E. R. Cooper, Cashier Market Bank, New-York.

R. F. NICHOLS, New-Orleans.

Importer of fine Cattle, and Wholesale Agent for several Fruit and Flower Nurseries.

Consignments and orders solicited.

## KEEP YOUR FEET DRY.

## A. BROWER'S PATENT COMPOSITION

makes Boots and Shoes and all leather impervious to water, will keep so; polish as well after as before, and last at least half as long again for using it; which everybody ought to have.

Sold in New-York by:—

Claffin, Mellen & Co.; Carr, Howard, Singer & Co.; Wells & Christie; Ellis Bro. & Co.; Wessen & Co.; Wessen, Watter & Co.; Wm. Bryce & Co.; Norton Jewett & Co.; Harmon Hays & Co.; S. R. Van Duzer & Co.; Prichot, Bruen & Seabury; Walsh, Coulter & Co.; Chapman, Lyon & Noyes; Bliven & Mend; Lathrop, Ludington & Co.; C. W. & J. T. Moore & Co.; J. H. Ransom & Co.; Benedict, Hall & Co.; A. B. Sands & Co.; Floyd Clarkson; Graden McCready & Co.; Harrah, Risley & Kitchen; Cook, Dowd, Baker & Co.; Gasheirie & Davies; Forges, Bulker & Plimpton; Freeland Symes & Co., and by all Boot and Shoe, Hardware, Druggists, Groceries, and Yankee Notion Houses. Send your orders.

A. BROWER & CO., No. 4 Reade-st., New-York.

## IMPORTANT TO FAMILIES.

MAKE YOUR OWN SOAP.

## "SAPONIFIER,"

THE READY FAMILY SOAP MAKER.

Cost of one pound Saponifier (in iron box) ..... 25c.

4½ pounds of refuse kitchen grease, boiled about four hours, with the Saponifier, which would ordinarily be thrown away, or sold at one cent per pound, say, ..... 20c.

Forty-five cents, therefore, is the whole cost of fifteen gallons of very superior soft soap, a perfect jelly.

TRY IT!!!

It will clean type to perfection, and where a strong lye is wanted for any purpose, it will be found valuable.

To be had of all respectable druggists and storekeepers.

BEWARE OF COUNTERFEITS.

The Original, Genuine, and Patented Article only made by THE PENN'A SALT MANUFACTURING COMPANY.

Trade supplied and Circulars sent by addressing LEWIS, JAMES & CO., Agents, 231 South Front-st., Philadelphia, Pa.

## To Horse Owners.

WELLING'S WORM, DIURETIC AND CONDITION POWDERS, made after veterinary physicians' recipes, are very efficacious when given to horses suffering from inflammation of the lungs, livers, worms, surfeit, moulting, or when hindered. Testimonials from farmers, city railroad men, and other owners of horses, with direct orders for use, may be had on application to SAMUEL G. WELLING, Apothecary, New Rochelle, Westchester Co., N. Y. The trade supplied at \$4 per dozen large boxes of 1 doz. doses each. Retail price 50c per box.

## GUANO.

We would call the attention of Guano Dealers, Planters, and Farmers to the article which we have on hand and for sale at

THIRTY PER CENT LESS THAN PERUVIAN GUANO

and which we claim to be superior to any Guano or fertilizer ever imported or manufactured in this country. This Guano is imported by WM. H. WEBB, of New-York, from Jarvis & Baker's Islands, in the "South Pacific Ocean," and is sold genuine and pure as imported. It has been satisfactorily tested by many of our prominent Farmers, and analyzed by the most eminent and popular Agricultural Chemists, and found to contain (as will be seen by our circulars) a large percentage of Bone Phosphate of Lime and Phosphoric Acid, and other animal organic matter, yielding ammonia sufficient to produce immediate abundant crops, besides substantially enriching the soil. It can be freely used without danger of burning the seed or plant by coming in contact with it, as is the case with some other fertilizers; retaining a great degree of moisture, it causes the plant to grow in a healthy condition, and as experience has proved, free of insects. For orders in any quantity, (which will be promptly attended to,) or pamphlets containing full particulars of analyses and tests of farmers, apply to

JOHN B. SARDY, Agent,  
No. 58 South st., corner of Wall st., New-York.

## American

### CHEMICAL GUANO.

This Guano has been fairly and practically tested side by side with Peruvian and other imported Guanos, Poudrette and Superphosphate of Lime, equal quantities, by gentlemen of the highest standing, with the most flattering results. Price per ton \$45, in bags or barrels, delivered in New-York free of cartage. Pamphlets can be had on application at the office of

LAIGHTON & UNDERWOOD, Agents,  
No. 161 Pearl street, New-York.

## Dried Blood and Wool Manure.

A new and valuable Fertilizer, containing a large proportion of nitrogenous matter. Bone Dust—Fine ground Bone Sawings and turnings and coarse bone for grapes—warranted a pure article.

R. L. ALLEN,  
New-York Agricultural Warehouse and Seed-store,  
191 Water-st., New-York.

## The Leaf Bee Hive,

Invented by T. S. Underhill, and patented Dec. 13th, 1859. This improvement is for practical use, and obviates all difficulties in operating with the movable frames. For rights, &c.

Address T. S. UNDERHILL, St. Johnsville, N. Y.



## Contents for March, 1880.

Accounts—Farm, How to Keep.....	72
Advertisements—A Good Class of.....	91
Advertisements—Bogus Land, etc.....	91
Advertising Information—Gratis—IX—Seeds, Quacks.....	70
Agave Yuccaefolia.....	Illustrated.. 84
Agricultural Lectures at Yale College.....	96
Animals—Mode of Suspending Slaughtered.....	Illustrated.. 75
Apples—King of Tompkins Co.....	82
Asparagus—How to Obtain early.....	83
Bee-Keepers—Caution to.....	70
Bees—Apary in March.....	67
Bees—Method of Transporting.....	Illustrated.. 76
Books—Flower Garden Directory.....	91
Boys' and Girls' Columns—Editor with his Young Readers—A Telling Illustration—The Lucky Branch—What do you Think of Yourself?—How a Man got Scared—A Boy seeing a Strange Sight—Common Errors in Speaking, by Anna Hope—Answers to Problems—New Problems.....	7 Idus.. 68-89
Broccoli—A new Variety.....	Illustrated.. 77
Brooms—Home-made again.....	Illustrated.. 74
Brushes—New Mode of Making.....	2 Illustrations.. 56
Buildings—A Farm House.....	3 Illustrations.. 73
Buildings—Plans of Barns.....	91
Cabbage Family—The.....	77
Cabbage—Wonderful Yield of.....	77
CALENDAR OF OPERATIONS FOR THE MONTH.....	66
Cattle—Treatment of Breeding Heifers.....	69
Charcoal—Burning in Kilns.....	75
Cockroaches—Freezing them out.....	66
Doctor—Familiar Talks by the.....	III.. 67
Farm—Work for in March.....	66
Fences—Hints on Building Wire.....	71
Fire—Escaping from Burning Houses.....	86
Flowers from the Prairies.....	84
Flower Garden and Lawn in March.....	67
Foxglove ( <i>Digitalis</i> )—Medicinal Properties of.....	84
Frost—Suggestions for Protection from.....	75
Frost Work—A Phenomenon.....	Illustrated.. 72
Fruit—How long do Varieties last?.....	62
Garden—Kitchen and Fruit in March.....	66
Gardening in Old Times.....	85
Gonoseberry—Hints on Culture.....	85
Grafting—Instructions for Beginners.....	85
Grapes—Dr. Grant's not Destroyed.....	85
Grapes—American, two Centuries.....	85
Grapes—Delaware—Correction.....	85
Grapes—The Mania for New.....	85
Grass Lands in Spring.....	85
Green and Hot-Houses in March.....	85
Hungarian Millet for Horses.....	85
Insects—Microscopic View of Them.....	85
Insects—Wash for Fruit Trees.....	85
Lamp and Match box Combined.....	Illustrated.. 61
Lantern Blinks—XVII—Market Days.....	74
Leather Preservative—Brower's.....	91
Letter from Abroad, by S. S. Parsons.....	79
Manures—Scientific and Practical Talks about.....	III.. 68
March—Odd Hints for.....	70
March, Suggestions—Extravagance.....	85
Market Review, Weather Notes, etc.....	90
Mountains of California.....	96
Mouse and Rat Trap—A good and Cheap.....	Illustrated.. 86
Music—Influence of in the Family.....	85
Orchard and Nursery in March.....	66
Ornaments—Inexpensive Household—II—Cone Baskets, etc.....	2 Illustrations.. 85
Poisons—Keeping them Safe.....	87
Potatoes—How to Raise Early.....	73
Poultry—Chinese Geese.....	Illustrated.. 76
Poultry—How to Raise Turkeys.....	76
Premium Lists still Open.....	69
Premiums—Seed, Valuable.....	96
Recipes—Almond Cake—Ginger Cake—Ginger Nuts—Spice Nuts—Delicate Cake—Jackson Snaps—Domestic Cake—Tea Cake—Spanish Biscuit—Lemon Pie—Delicious Corn Bread.....	87
Rhubarb—How to Obtain early.....	83
Seeds Distributed in 1880.....	90
Seeds—Duration of Vitality in.....	69
Seed Trade—New feature in.....	96
Shawl Pin—Home-made.....	Illustrated.. 86
Sheep—Protection from Dogs.....	75
Sorghum—Notes on Planting.....	78
Spikenard Berries for Cooking.....	85
The Bunker—Jotham Sparrowgrass with a Tile in his head.....	69
Tobacco—How Grown and Prepared for Market—II.....	78
Trees—Preserving from Rabbits.....	82
Trees, Vines, etc.—Not Grown for Sale.....	87
Trees—Wild Pear Stocks.....	82
Types—Errors of the.....	80
Water for Pastures—Horizontal Wells.....	79

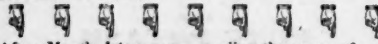
## Agriculture at Yale College.

The Lectures and Discussions at Yale College are in progress as we close up this number. We at first intended to give a pretty full report, but it would be useless to attempt this, as will be seen when we state that the daily exercises consist of a discussion from 9 to 11 o'clock A. M.; a lecture of an hour or more at 11; a lecture at 2 P. M.; another at 3, and a meeting for discussion in the evening. The lectures are mostly given by leading practical men in the various departments of farming, fruit culture, stock raising, etc. We consider this the most important gathering ever assembled in our country, so far as general agriculture and its cognate pursuits are concerned. The enterprise when first proposed, struck us as a noble one, and it is proving quite as successful as its originators and promoters could have hoped. Its influence will tell upon the future. We could wish that there were a thousand times as many farmers present to participate in its advantages. We doubt not this will be a permanent institution at Yale College, and also the precursor of others of a similar character. Though our readers do not get a formal report, they will derive at least some advantages in the suggestions appearing from time to time in various articles in this journal.

## VALUABLE SEED PREMIUMS.

FOR THE MONTH OF MARCH.

In procuring our seeds for distribution this year, we provided an extra quantity, to be offered in special Premiums, as a remuneration to those who will, during this month (March,) assist in extending the circulation of the *Agriculturist*. Thus:



After March 1st, any one sending the name of a new subscriber for the present Volume, may select from our general list of Seeds (on page 90) an assortment of **Fifteen Packages**, for his or her own use, in addition to the usual four or five packages for the subscriber.



Seeds may be called for at our office, or they will be sent by mail, if the amount of postage be furnished against each kind (on page 90.) Any sometimes be sent cheaper by express.) A special rate is offered for each new subscriber sent six rates, whether single names at \$1 each, or for additions to clubs already formed, or new clubs. (Of course, these seed packages are where the other premiums (page 96) are sent.)

This is a good opportunity for any one to get a fine lot of Seeds at barely the cost of carriage, by mail or otherwise. Each new name will secure fifteen parcels. A club of six (for \$5) will secure ninety parcels; a club of ten (for \$8) 150 parcels (two or more of each kind); a club of fifteen (for \$12) 225 parcels, and an extra copy; and so on for higher numbers.

These seeds are fresh, and of pure quality. The flower seed parcels and some others, each contain enough for a small plot. The heavier kinds, such as corn and peas, are made as large as they can go under letter postage. Each kind is put into a separate paper seed-bag, duly labeled and numbered.

Whether this premium will be offered beyond the present month (March), will depend upon how our stock of seed holds out. Many of the seeds were imported direct from Europe, and we cannot get a second lot in time for this season's planting. We will reserve a small supply, at least, for those at a great distance, who cannot get this paper in time to secure and send in names before the close of March.

**N. B.**—As a few of the varieties, that chance to be most called for, may run short, those applying for seeds will do well to prepare one list of such as they most desire, and also add a few numbers marked "2d list," to be selected from, in case any of those on the first list happen to run out.

**N. B.**—In making out a seed list, use only the numbers (p. 90), and omit the name of the seed.

**N. B.**—Remember to provide for the postage when the seeds are to go by mail.

## A New Feature in the Seed Trade.

The difficulty of procuring good seeds in remote sections of the country, is in a fair way to be obviated, by the plan now adopted by dealers, of offering select lists of seeds to be sent by mail. Our readers will find, in our advertising columns, several announcements of this kind by reliable seed dealers. This rather interferes with the extensive system of seed distribution and premiums, adopt-

ed by us, several years since, but we are not sorry. Nothing pleases us more than to see a wide diffusion of plants and flowers. But aside from the pleasure, what we lose by competition, we shall gain in the end, by the increased attention and taste developed for plants, and a consequent larger demand for agricultural reading. We also heartily welcome our dignified contemporaries, who, with but one or two exceptions, have even at a late day commenced scattering seeds and plants broadcast among their subscribers. Now that they join us in the good work, we cheerfully overlook the hints of "catch-penny," etc. thrown out in certain quarters, when our first active efforts towards a wide distribution of seeds were made. "All's well, that ends well."

## To the Mountains of California.

The Steamer that carries this number to the Pacific Coast, takes out a Wheeler & Wilson Sewing Machine for Scott Valley, Siskiyou County, California, which lies about 300 miles north of San Francisco, near the boundary of Oregon. This machine is sent by the Publisher of the *Agriculturist* as a premium to a Lady, who, by showing a single copy of the paper, has, since Dec. 1, obtained the requisite number of names, and had, at the date of her letter (Jan. 10,) started a second list for the Cyclopædia premium, which she soon expected to secure. She says, the premiums are less a stimulus, than a desire to show that this region is not, as some think, "inhabited by savages and wild beasts, dwelling in holes in the mountains," which the map makers have sprinkled so profusely over that part of the country. It will certainly startle many Eastern people to learn that in a single locality in those far off regions there are hundreds of enterprising farmers who subscribe for and read the *Agriculturist*. So far we believe Siskiyou County is our banner county on the Pacific Coast.



Can at any time be increased, by remitting for each addition, the price paid by the original members—provided the subscriptions all date back to the same starting point. The back numbers will of course be sent to added names.

## American Agriculturist.

(ISSUED IN BOTH ENGLISH AND GERMAN.)

A THOROUGH GOING, RELIABLE, AND PRACTICAL Journal, devoted to the different departments of SOIL CULTURE—such as growing FIELD CROPS; ORCHARD and GARDEN FRUITS; GARDEN VEGETABLES and FLOWERS; TREES, PLANTS, and FLOWERS for the LAWN or YARD; INTERIOR and OUT DOOR work around the DWELLING; care of DOMESTIC ANIMALS &c &c.

The matter of each number will be prepared mainly with reference to the month of issue and the paper will be promptly and regularly mailed at least one day before the beginning of the month.

A full CALENDAR OF OPERATIONS for the season is given every month.

FOUR TO FIVE hundred or more, Illustrative ENGRAVINGS will appear in each volume.

Over SIX HUNDRED PLAIN, PRACTICAL, instructive articles will be given every year.

The Editors and Contributors are all PRACTICAL, WORKING MEN.

The teachings of the *AGRICULTURIST* are confined to no State or Territory, but are adapted to the wants of all sections of the country—it is, as its name indicates, truly AMERICAN in its character.

The German edition is of the same size and price as the English, and contains all of its reading matter, and its numerous illustrative engravings.

## TERMS—INVARIABLY IN ADVANCE.

One copy one year.....\$1 00

Six copies one year.....5 00

Ten or more copies one year.....80 cents each.

An extra copy to the person sending 15 or more names, at 80 cents each.

In addition to the above rates: Postage to Canada 6 cents, to England and France 24 cents, to Germany 24 cents, and to Russia 72 cents per annum.

Delivery in New-York city and Brooklyn, 12 cents a year.

Postage anywhere in the United States and Territories must be paid by the subscriber, and is only six cents a year, if paid in advance at the office where received.

Subscriptions can begin Jan. 1st, July 1st, or at any other date if specially desired.

The paper is considered paid for whenever it is sent, and will be promptly discontinued when the time for which it is ordered expires.

All business and other communications should be addressed to the Editor and Proprietor.

ORANGE JUDD,

No 180 Water st., New-York